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ABSTRACT

This project examined the development of the physical structure of a city in preparation for the designing of a unit of study on Urbanization for grades five through twelve. The rationale is focused on the effect physical structure has on the processes and functions of urban life. Recognizing the need for a method or process to examine city forms, the study of urban geography in conjunction with other social sciences was utilized. The concepts of urban geography and its relationship to anthropology, sociology, economics, history, political science, social psychology, and geography provide background for the approach to the topic. Concepts of each discipline are listed to present a suggested framework of objectives. General objectives and criteria are briefly recounted, but final selection of concepts are left for the 1971-72 developmental phase of the curriculum. A case study of the city of Saskatoon provides a primary illustrative model for development of curriculum design. Related documents are ED 055 011-020. (JMB)

THE FACTORS AFFECTING THE STRUCTURAL GROWTH OF A CITY

JUNE 1971

Western Curriculum Project on Canada Studies

THE FACTORS AFFECTING THE STRUCTURAL GROWTH OF A CITY

Developed by:

The Environmental Analysis
Study Group
Saskatoon, Saskatchewan.

CONTENTS

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II STATEMENT OF THE PROBLEM SELECTED

We have chosen to examine the development of the physical structure of a Canadian city as one aspect of "Urbanization." This topic has been selected because the physical structure provides the setting in which urban life exists. This setting has very definite effects on the processes and functions of urban life. Many problems of the city stem from the characteristics of this physical structure and its development. An understanding of the organization of the structure and the factors that are responsible for an urban settlement taking the form it has should be fruitful in itself as well as providing the logical basis from which other topical studies such as identity, interdependence, pollution, aesthetics, etc., can be developed.

Our objective is to prepare a unit of study for Canadian children on this theme. This unit will be set up in such a way as to capitalize on the student's wide range of interests and capabilities. The concepts to be learned will be organized in such a way that there is a progression of learning from the simple to the more complex. Over all it is planned to encompass levels of learning from grade five through to grade twelve.

It is difficult at this point to predict the length of school time to be devoted to studying the material as the final selection of concepts has not been made. No doubt this will also vary with the class level using the materials, the ability of the students, and the detail to which the student and teacher wish to involve themselves in this study.

III A STATEMENT OF RATIONALE

Cities and urban centers are facts of Canadian life. Eighty per cent of Canadian people live in urban settlements where the majority of activities (economic, social, etc.) and institutions are found. Canada is no longer the rural country it once was and all indications seem to suggest we will become "more urban" in the future. Concomitant with the movement of people from rural to urban areas has been a change in the attitudes of people who live in cities --- our perspectives are much different from those of our parents and grandparents. Out of these changing attitudes, have arisen the multiple crises of urbanization. Crises that range from economic problems of unemployment and displacement through the psychological issues of identity and alienation. It is obvious to us then that there is no real need for sophisticated rationalizations on why urbanization has been selected as a continuing concern of Canadian life. Urban living is a fact --- and so is it a fact that schools have focused little or no attention on the study of the city and its images. Aside from cursory and indirect investigation the social studies by and large has ignored a real and legitimate study of urbanization. The question we, in this Project Canada West sub-project must answer is, "Does the study of the growth and development of the physical structure of a city constitute any real and legitimate focus for the study of Urbanization?" We answer with a resounding "Yes !"

In the vague realm surrounding the term "Urbanization" definitions are both plentiful and, often, inadequate. Interpretations of the phrase "physical structure of a city" run from the geographer's stark "morphology" to fuzzy feelings about the concrete cultural configurations of a city. In between these extremes lie the plethora of terms that, collectively, may fall short of a definition but at least constitute a demarcation of what physical structure entails. Doxiadis suggests "shells and networks," others refer to "patterns and profiles," still other writers mention

"city molds," "vistas" and "urban landscapes." Ultimately one must merely say physical structure refers primarily to the non-human elements of the urban scene. This, however, does not imply ignorance of the human element in cities but rather an investigation of the complex relationship between society's values, changing economic conditions and the physical features (natural and man-made) of the urban land-scape. (A more precise description of this concept can be found in a section of the report dealing with research findings.)

The focus of this project then will be the physical structure of cities. The ultimate objective as with all Canadian studies' projects is the promotion of Hodgett's expressed ideal of a "...rational community approximating the democratic ideal." More immediately the goal of this study is the development of knowledge, skills and attitudes that will contribute to a student's sensitive and meaningful understanding of urbanization. As Sociologist Ralph Tomlinson has said, "prerequisite to rational action is the knowledge of the way cities have grown."[1] This statement offers the key raison d'etre of our study.

The problem of how to study urban growth and development is complex. As we examine urban living, we must be aware of questions like, What is Canadian about our cities? Do our city forms reflect our needs and hopes -- or are they transplanted pale imitations? Discovering an approach, then, is vital to the success of the investigation. In the beginning two alternatives seem to present themselves. On the one hand exists a narrow purely descriptive approach -- this is unacceptable for as A.L. Strauss states in his book on images of the city, physical structure does not mean "...looking at objectively what was happening to (the city) but rather what (people) have thought and are thinking about those happenings. It is the imagery of urbanization about which we are

[1] Ralph Tomlinson, Urban Structure, Random House

concerned because it illuminates contemporary reactions of today's urbanization."[1] In other words what ultimately is under investigation is the life styles both past and present of urban dwellers. Life styles that reflect the whole spectrum of the social studies. However, if we abandon a descriptive approach as too narrow; we cannot accept a shallow, oversimplified notional approach. Over-simplifications and unfounded generalizations add little to true knowledge. What remains then is the middle way -- a compromise. We feel we achieve this by selecting the study of urban geography as a synthesizing study of several social sciences (anthropology, history, economics, sociology, etc.) and rejecting a rigid single discipline approach. The object then is to provide a frame of reference, a method of inquiry, a unifying search that offers open-ended investigation where questions, not answers emerge. By incorporating ideas from social sciences, we feel we are offering a legitimate inquiry and by centering our investigation on urban geography we are offering a starting point for expanding horizons.

Basically, then, our project has two presuppositions. First, we recognize the significance of the physical structure of cities - to quote Tomlinson "...practitioners of urban ecology need to know the manner in which metropolitan areas, cities and neighbourhoods are put together before they can begin deciding on and effecting plans for rearranging or maintaining existing social, economic and spatial patterns."[2] Our second premise is that a method or process is necessary to study city forms. We feel the study of urban geography in conjunction with other social sciences offers us this method.

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[1] A. L. Strauss, Images and the American City, Free Press of Glencoe, New York, 1961, p.86

[2] Tomlinson, Urban Structure, p. 19

IV A REPORT OF RELATED READINGS and RESEARCH FINDINGS

This report is based on readings and a series ofsymposia conducted with experts in the social sciences (who have been listed as experts participating in seminars). A selected list of readings may be found in the bibliography.

The Position of the Social Sciences

The conceptual model of our sub-project (Figure I) included in this presentation suggests that, although the focus is on urban geography other social sciences will be involved to a greater or lesser extent. This approach is in keeping with the views of many enlightened social science educators who together with many teachers in the field, have come to the conclusion that social studies as a discipline does not exist and that social studies curricula have failed to achieve their objectives due to a lack of structure. Senesh has said that "...indoctrination of values is emphasized at the expense of analysis,"[1] and he has criticized present social studies programs on the grounds that they do not offer the proper intellectual frame-work to develop the analytical faculties of youth. It is further stated:

> Social studies educators who have tried to identify generalizations for the social studies curriculum have suppressed the unique characteristics of the individual social science disciplines and formulated concepts so general that they are without analytical content. Since social scientists have not yet achieved a unified theory of society, economists, sociologists, political scientists, and anthropologists observe society from different points of view, and their findings have to be superimposed on each other before social change can be understood. Since all social science disciplines are necessary to explain social phenomena, the fundamental ideas of all the disciplines should be introduced in the school curriculum.[2]

The above is used as the basic argument to support the thesis that our sub-project should be tackled from the point-of-view of a discipline. We also propose to

[1] Irving Morrissett (ed.), Concepts and Structure in the New Social Science Curricula p. 21
[2] Ibid. p. 22

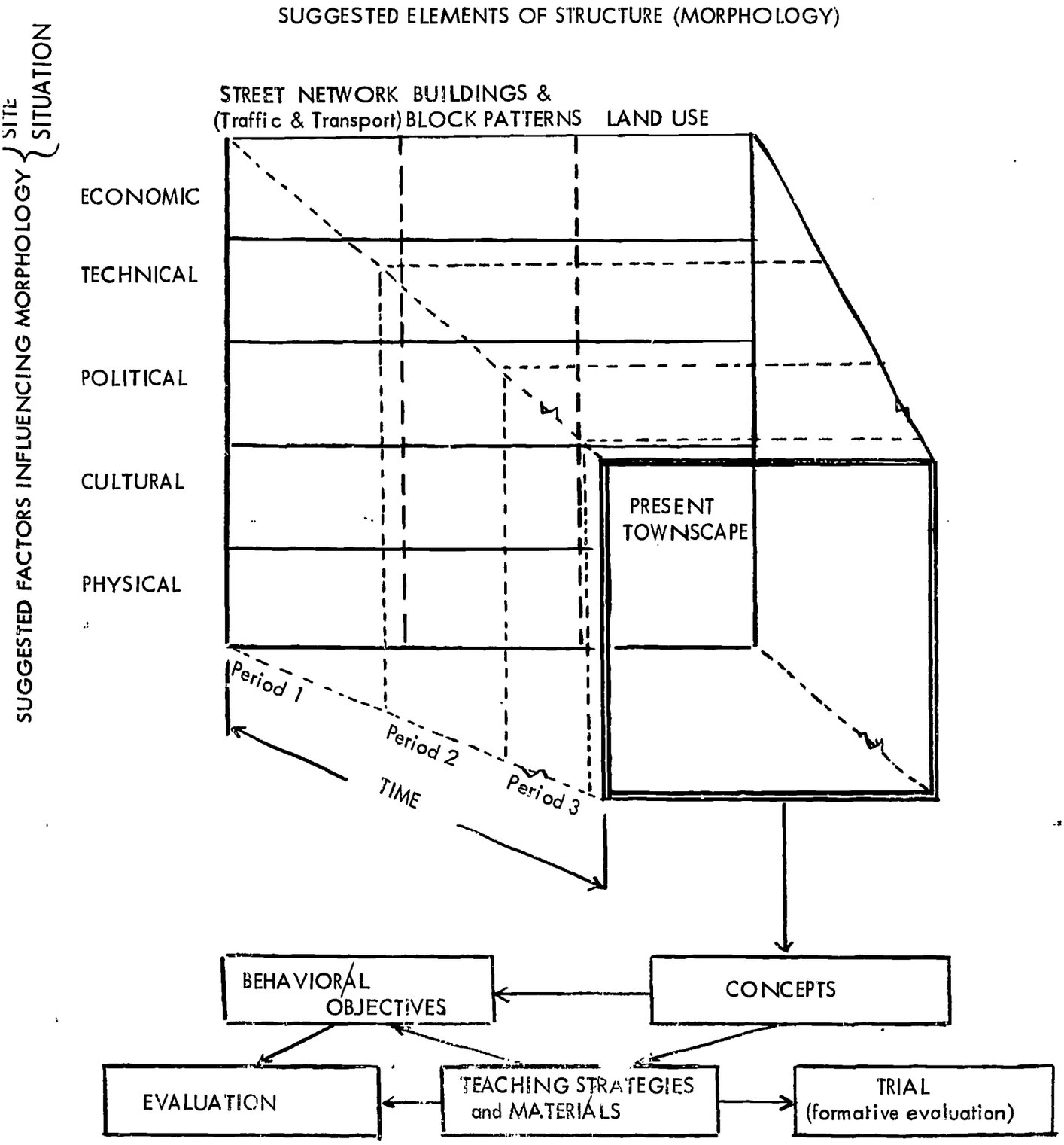

FIGURE I, Conceptual Model for Factors Affecting the Morphological Development of a City

include other ideas from other disciplines if we feel they are relevant to our ideas as epitomized by the conceptual model. At the same time we do not believe that these ideas should be over generalized and watered down to the point that they become as meaningless as concepts extant in current social studies programs.

Further, there seem to be two ways of expressing educational ideas: one is to clothe the statement in jargon to the extent that it becomes incomprehensible; the second is to oversimplify ideas to the extent that they either cease to have meaning or that they are open to misinterpretation. For the second of the two reasons, by general agreement of the group and consultants, we will avoid stating concepts in the matrix form as suggested.

We are interested in what the other social sciences have to say, and in a series of meetings with authorities listed (see Appendix A) have discussed the various ideas with which the disciplines are concerned.

As has already been indicated the ideas postulated by all the social sciences are relevant to this project if they are concerned with the problems of the city. This fact is in keeping with prevailing theory that the social studies curriculum must be predicated on the social sciences in order that it may make its maximum impact in the development of effective citizenship. As will be seen in the section relating to Urban Geography, attention must be given to ways in which concepts and main ideas in the social sciences may be identified and developed. Modes of investigation, processes of thinking, and the growth of attitudes and skills which develop an understanding of the structure of the social sciences through the discovery of key concepts and generalizations, must be given every consideration. Application of what has been learned to a variety of situations should be one of the important objectives. Such objectives may be attained, in part, by setting up an organization of ideas that can be used at every grade level. Thus

the same structure of knowledge may be utilized with increasing depth and complexity.

What follows is a resume of some of the general ideas which relate to the discipline in general and then to urbanization in particular. The latter have been garnered in conversation with the consultants listed and specifically apply to Saskatoon. The eventual concepts which will derive fromthem will, in keeping with our statements above, be capable of being applied to any urban situation.

Anthropology

Anthropology is the comparative study of man. Originally it concerned itself mainly with the study of primitive or non-literate societies; but recently it has been focussing on small groups and villages in modern societies. Its central concept is that of culture, which is learned and is reflected behavior. Culture may also be said to be that which makes life meaningful and it is this area which is the sphere of the anthropologist.

Culture is a phenomenon so vast that the student could examine it for a lifetime and still not encompass everything there is to know about it. One way to understand it is to learn how it began and how it developed, that is, to examine it in a historical framework. Of central importance is the idea that the learned behavior referred to above is learned from the group under study and that it is not inherent or biological. There are basically two methods of adaptation to environment, the biological which is made by animals other than man, and the cultural which is made by man himself.

> The cultural adjustment is in many ways superior to the biological. For example, the polar bear has biologically adjusted to the cold North but will fare poorly in the temperate or tropical zones. Man is the only large animal found in all zones and parts of the earth, and this is because he has learned to adjust to the requirements of the various

regions by developing an appropriate culture.[1]

One of man's characteristics is that he can be both self-conscious and self-critical. Thus he can be critical of his culture and seek its change or improvement. In modern industrialized societies such change is very rapid and does not necessarily change evenly in all its parts. Where parts exhibit little or no change they are said to display cultural lag. This lag in turn results in a lack of adjustment or harmony between the parts and results in a social problem, although all social problems are not the results of cultural lag. In modern times in Western society the most changes have been occurring in technology, while adaptive behavior has lagged, thus creating strain and tension. Nowhere is this strain and tension more apparent than in our cities.

Behavior which is true for a particular person is that which exists in a crisis situation. The crisis is heightened because there is a tendency for the city to be impersonal in its dealings with people. People then tend to treat other people in the city as less than human and get away with it. Classes of people in the city are related through status and/or discrimination which may be due to race, health, social ostracism and similar reasons.

The important thing about a discipline is not its factual information but its approach. Anthropology has probably made its greatest contribution to social science by developing the concept of culture as its central theme, a concept which has proved illuminating to all the disciplines concerned with the study of human group life. Its research method is notable for its emphasis on long term, intimate observation and participation in the daily life of the society under study.

The introduction of similar techniques of detailed and detached observation

[1] Edwin Fenton (ed.) Teaching the New Social Studies in Secondary Schools (New York: Holt, Rinehart and Winston, 1966) p. 369.

into the classroom may help students achieve a sympathetic objectivity in studying their environment which may extend to others. Perhaps too, this may lead to greater tolerance and effectiveness in adapting one's attitudes and behavior to the inevitable changes occurring in our society.

Economics

Any study of economics at any level should seek to provide four simple things: a rough overview relating to the workings of the economic system as it exists in Canada; an awareness of some of the major economic problems which are in existence now; some understanding of a few major institutions of economic society and fundamental economic concepts; and some experience in applying these to economic problems. Lawrence Senesh, in his efforts to provide these four simple things has noted some fundamental ideas which he feels are basic to economic studies. To begin with: he maintains that the central idea of economics is the scarcity concept which implies a conflict between unlimited wants and limited resources. Some economies have begun to produce an abundance of goods and services but scarcity still persists in much of the world so that the gap between have and have-not societies is getting larger each year. Secondly and emerging from the concept of scarcity, man has tried to develop methods to produce more in less time which has resulted in specialization. Such specialization may be geographic, occupational or technological or any combination thereof. The third idea stems from this specialization and states that it leads to interdependance so that no man, no family, no industry, no community, and no nation is economically independent. The more highly industrialized a society is, the more the degree of interdependence. The fourth idea relates to the allocating mechanism of production and is the market, where through interaction of buyers and sellers, price changes occur.

Prices determine production patterns and methods, income distribution and saving, and the level of total economic activity. The last basic idea refers to the role of government in control of growth, promotion of stability, assurance of economic security, promotion of economic freedom, and the promotion of economic justice.

Economic institutions are universal, and significant, and they are a permanent feature of almost every economy. Money, banking, credit, markets, corporations, unions, tariffs are some of the major ones. Every economy has certain economic values and beliefs that influence economic thought. Persistent economic values and beliefs (role of profit, competition, private enterprise, role of government) influence economic policies, decisions, and what is to be done about persistent economic problems. Economic policies may change over a period of time when considered in juxtaposition to political affairs.

Wolforth and Leigh state that "The economic base model is an attempt to understand the urban economy. It divides the economic activities of a town into two components, basic and non-basic activities. To be precise, basic activities involve the sale of goods and services to customers outside the city itself. The firms which do this are exporters and bring money into the city. Part of the money earned by firms and workers in the basic sector is respent within the city, on locally-produced goods and services. The local firms that provide these goods and services actually make up the non-basic sector of the city economy. In other words, non-basic firms make the most of their sales to customers within the city itself, not outside it. The entire urban economy, though, is considered supported by the exporting firms of the basic sector in this model. Figure 2 is a diagrammatic representation of this situation.

An important point about this model: it suggests that if the basic sector expands,

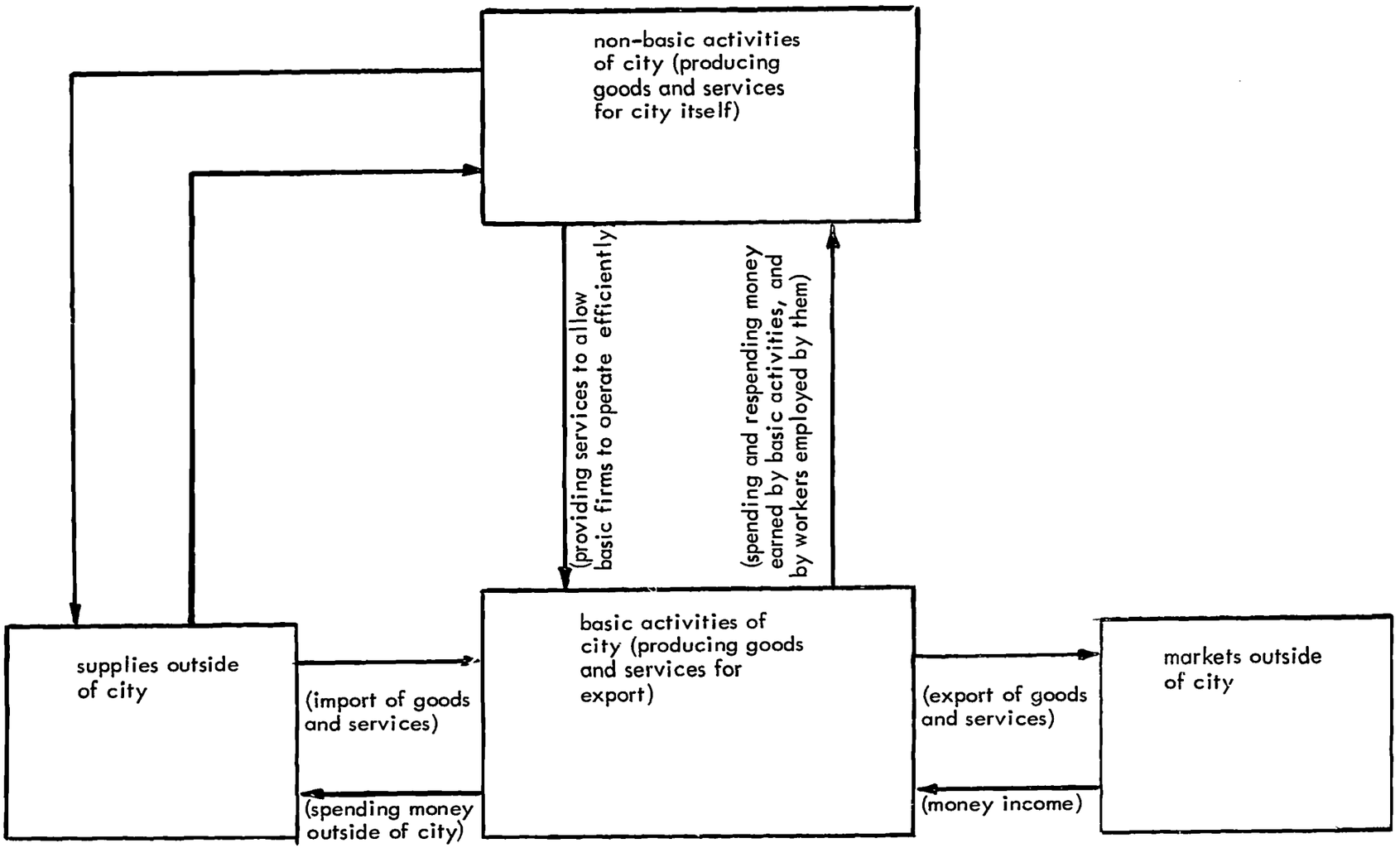

Fig. 2 Economic base model. (Source: Wolforth and Leigh, Urban Prospects, 1971. p. 53)

and brings more money into the city (as it might, if the demands for the goods it produces increases in outside areas), then the whole city economy will grow. Extra money will be available in the city to support more non-basic service businesses also. Thus, growth in the basic sector causes the whole city to grow by encouraging more growth in the non-basic sector. This is called the multiplier effect, since one sort of growth "multiplies" through the city to create more growth. This multiplier effect is particularly effective if little of the income earned by basic firms leaves the city to buy imports, that is, if most of it is spent again in the local area. This is actually the case with larger towns and is another reason why larger towns tend to have better records of economic growth than small ones.

Figure 2 also shows that some of the income earned by basic activities may actually be spent outside the city itself, that is, used to buy imports. This diagram illustrates well the fact that no city stands alone in economic terms. Every city is connected to other cities and places, since it exports to other cities the output of its own basic activities, and imports from other places a wide range of goods and services. These connections between the cities of a modern nation enable us to talk about the urban system of a nation. In an urban system, each city is more or less specialized in the production of some goods and services, and in addition all cities are interdependent, that is, depend on each other to be the markets for some of their exports, and the sources of some of their imports. For example, in Canada the smaller cities of the economic fringe extract and process resources that are often shipped to particular cities in the economic heartland for incorporation into manufactured goods. These manufactured goods are then distributed to consumers in other heartland cities, or in the fringe, through the chain of cities that have distributive functions. In short,

specialized cities are linked to one another in an interdependent system by the exchange of materials, goods, and money.

However, many centres in an urban system are not only interdependent but are also competitive; they produce similar goods and services and try to sell them in the same markets. For example, many of the basic industries of Vancouver and Calgary compete for the customers of Western Canada; to a certain extent the growth of one centre is at the expense of other less successful centres that cannot hold and enlarge their outside markets as well. The competitive success of the basic industries of a town may depend on the relative advantage a town has due to a good location or may be connected with a skilled or energetic population. The basic industries of large towns also have distinct advantages when competing for markers since the elaborate service businesses of the larger towns tend to reduce the costs of operations of firms located there, and since the concentration of talented workers in larger places helps foster improvements in products or production processes. This competitive edge is another reason for the economic vitality of larger towns in comparison to small centres, and for the increasing concentration of population in larger urban centres.

The economic base of a particular city can be identified if we can discover the location of the customers of the various urban firms. The firms that sell to out-of-town customers are the basic firms."[1]

Economics as related to the city has a varied impact. It can help answer such questions as: why are cities of different size? -- how may numbers of cities of varying size be explained? -- why do cities grow (or not grow)? -- what factors are responsible for alteration in structure of today's cities? The part played by the scale requirements

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[1] Wolforth and Leigh Urban Prospects 1971

of markets is important, e.g. the lowest order function tends to be localized, higher order functions become more dispersed. A larger center serves dozens of smaller centers in terms of higher order functions. Change may take place at differing rates in various economic sectors thus affecting growth patterns. For example, there has been a rapid increase in output per man year in product producing industries (agriculture is two and one-half times what it was thirty years ago). The demand for labor in these sectors has declined while the demand for products has not increased in proportion. In the service industries there has been a slow rate of productivity growth but a rapid increase in demand. Growth patterns have therefore favored urban areas so that rural migration to the cities has resulted. Improvements in transportation have contributed to urban growth and have led partially to the creation of suburbia, which in turn, may create more problems than it solves.

An understanding of these problems of city growth due to economic factors is both necessary and desirable as is a practical understanding of economic affairs in general. Economic literacy is vital to the well-being of every citizen.

History

In one sense history is a record of the past. From its study, the student obtains an explanation of the present and an understanding of the forces that are shaping the future. But it is more than a chronological narrative -- it is relationships, such as cause and effect put down in time. Theories so developed should be thought of not as means of summing up a mass of data already obtained, but as means of guiding the search for data and of assisting the process of analysis and interpretation. Thus they become explanatory devices and the test of validity is the practical one which asks how well the theory explains the evidence.

History may also be viewed in terms of structure and process. A city may be described as consisting of systems in interaction, characterized by a greater or lesser degree of organization. The degree and mode of organization in a situation is its structure. The concept of structure enables the student to build a theoretical bridge between the unique individual and the environment in which the individual acts. Individual behavior and the structure of the social environment are viewed not as independent but as interdependent. Thus the structure of a situation may channel behavior into particular lines, limiting freedom of action in some directions while opening up other possibilities in others.

The process of history infers that changes in a structure are frequently not random or haphazard but follow definite patterns through time. For example, the changes that occur in a city as it develops follow a recognizable course which can be identified and analyzed as a separable phenomenon. Structure and process are closely related concepts since the changes that are identified as constituting a process are always changes in a structure.

The related concepts of structure and process provide a useful guide in an analysis of causation. They enable the student to go beneath the outward signs of change and to seek an explanation in terms of underlying trends and conditioning factors. In analyzing the history of a city, the student must study its internal structure, its relationship to the culture and society of which it is a part, and the processes through which changes in internal structure are affected by, and in turn affect, its external relationships.

Political Science

Political science is the study of man's political behavior as well as of his

political institutions. The theory and practice of organizing and controlling the power base which is required to formulate public policy and administer public services forms a major part of the discipline. It seeks to bring together existing knowledge about the state, drawing from specialists within and outside the social sciences. Questions which are essential to the study of political science include those concerned with the origin of the state, the nature of law, justice, where authority should reside, and the extension of authority into the areas of individual conduct in both business and social life. A study of the role of law in any society brings out the relationship of individuals to the legal system, to sanctions, to the courts and to justice.

A scheme can be formulated to analyze and study political systems.[1] The scheme is divisable into four basic categories: the deliberative process and decision-making as a function of politics; the power base and its social and political aspects; ideology and its role in political motivation and institutional organization; the organization of political authority. It seems to us that elements of these four categories are eminently suitable to the formulation of related concepts in our study of the city.

From these four basic categories, more detailed ideas may arise. It is felt that the basic factor, the rate of growth of a city, is out of conscious control. In North America, anyone can come to live in a city and anyone can leave so that planning is to some extent a hit and miss policy. There is no control over the quantity or quality of people who tend to seek out their own kind, hence the development of ghettos and other ethnic concentrations. There is no concept in modern law to prevent people from moving although there is conscious control in some countries to regulate the size of cities. In medieval times control was exercised by enclosing cities within walls and small haphazard settlements grew up outside the walls as today shanty towns may grow up outside

[1] Roy C. Macridis, "The Study of Comparative Government," The New Social Studies, p. 30-

the boundaries of modern cities.

Political control by different groups will lead to conflict of interests so that services offered by any given city will vary according to the interests of whichever group is in power. As the rate of growth of a city in part determines the growth of the city, this point has relevance. The political control of a city outside its limits is itself limited to distinct or regional planning situations. This fact may limit the city's ability to incorporate more land for future development.

Political decision must anticipate technological change. Such decision decrees that one has to be big to be great, a debatable point at any time. Some urban development may take place purely as the result of a political decision although the development itself may be largely uncontrolled. New urban development and/or urban renewal will affect purchasing and traffic patterns in different ways. Political attitudes do not always take this into account.

One political decision will in part determine future political decisions. A land-bank may begin as the result of non-payment of taxes - it must then continue through a conscious purchasing policy. Other points of relevance to the study of the city and its functions are:

1. Urban development may be a function of city council attitude and provincial government powers;
2. government grants will affect the development of an urban area;
3. the composition of city council will affect political decision-making;
4. structure of business taxes against property taxes may reflect business interests so that the property owner may subsidize the businessman;
5. the hierarchy of municipal government may not be clear in that the functions and responsibilities of individuals are not delineated.

In the division of labour among the social sciences, political science can be thought of as a discipline designed to help individuals to become more aware of their

opportunities and obligations as citizens. To be a capable and conscientious citizen, the individual needs to understand the structure and function of government.

Psychology

Broadly speaking, psychology is concerned with the scientific study of thinking, feeling, perceiving, social behavior, personality development, atypical behavior, as well as the physiological processes underlying behavior. Psychology has close relationships with the social studies on the one hand and with the biological science on the other.

Social psychology serves as a bridge between sociology, which focuses attention on understanding large social settings and group structures, and psychology which focuses attention primarily on understanding, individual behavior, and personality. Social psychology is interested in how human beings learn and how their personalities are shaped. The three chief factors affecting personality are the constitutional, the social, and the cultural factors. Of immediate importance to our study are the latter two factors. The social factor has to do with one's relations with and to others. The kind of associates one has, especially during the early formative years of one's life has an important bearing on the kind of personality one develops. The cultural factors relate to the codified behavior patterns, the customs and ideas of how to do things which exist in the society and constitute the social tradition to which the growing individual is exposed. The culture offers the individual a choice among roles, which usually are limited. Thus he chooses an occupation, the choice of which is influenced by the opinions of his associates, his parents and his friends. The degree of success or efficiency which attends him following his occupational choice depends on him as an individual. Tension is liable to arise if there is conflict between the

demands of his role in society and the interest or skill he has in it. Because there are many individuals playing roles in society for which they are not suited and because society, in this modern era, consists mainly of city dwellers, social psychology has an important part to play in the study of the city.

Finally, it may be said that psychology contributes to the social studies through its content and method. Both are important to people who guide learning in the social studies. Generalizations that deal with relationships between individual behavior and group structure are illustrative of important generalizations that pertain to content and method.

Sociology

Sociology deals with those aspects of human behavior which are related to the fact that man lives in groups. It is concerned with the way the groups are organized. How they function and change, and how the group and the individuals interrelate one with the other.

Although customs vary from society to society, in any given society there is pressure to conform to prevailing practice. This fact is particularly true when the values and norms of society are concerned, i.e. ideas which relate to such things as right and wrong, physical modesty, sexual behavior, etc. Such ideas are known as mores and mores are usually considered sacred. Thus at any given time, the mores of a society will make anything seem right or wrong so that the influence of the group upon the individual in this regard is very strong.

A second influence is concerned with the fact that the city is characterized by being a large community with a heterogeneous population which has a high degree of

physical mobility. interaction tends to become impersonal and the sense of belonging which is usually present in a closely knit group, is absent. The individual who desires privacy is well catered to since he is surrounded by strangers who do not care about him. However, such privacy may become excessive to the point that utter loneliness sets in. On the other hand, the individual may enjoy the freedom which the city affords. Physical mobility results in a lack of integration in an urban society.

A major problem is the achievement of the unity which is necessary for effective functioning. Thus there must be a consensus on essential values and a feeling of satisfaction gained from belonging to the group. The development of laws tends to keep individualism within bounds and to promote the welfare of the group. Mass media, sports teams, community projects and other similar factors attempt the same end. It appears that people need some close ties in human relations for a satisfying social life, hence, the trend to join organizations, clubs, etc.

When values and norms cease to be acceptable to many people, rebellion results. Some rebellion is necessary to point out the weaknesses in what is supposedly a good society. Such rebellion is occurring now where values are those of the business society and social needs of people are subservient to economic needs. It is also true that, since the city is the most dehumanizing structure that there is, then the city must be either changed or restructured.

Sociology studies from two viewpoints, the traditional and the radical. The former involves an institutional approach and says that each institution is a sub-system of society and is complete in itself. The pattern of city structure can be explained by looking at all the sub-systems but it cannot be understood. There are many reasons for cities to exist where they are but there is no reason for anyone to live in Saskatoon except to

make a living or because he is trapped. The traditional study is value-free and committed to the scientific method so that as a discipline it doesn't get involved. More radical sociologists would take economic factors into account to explain a given situation. They would also deny the disinterest of traditionalists and maintain that the study should be used as a medium for social change.

It has been assumed by many sociologists that, given the society, that is the way it should be. In other words, sociology has tended to be a defender of the status quo. The system is only studied from the point of view of the system. Any proposal to study the city must examine the harmful aspects of the city as it affects people. Change must not simply be used to straighten out deviant elements for existing norms.

Urban Geography

Before looking at urban geography in particular, it will be as well to consider the place of geography in the whole scheme of the social sciences. Geographers are unified more by their method than by their material since they tend to draw material from many sources. These unifiers include research technology and method; a common set of values, such as the humanistic or aesthetic appeal of maps, the virtue of direct observation, and a desire for a comprehensive outlook resulting in an area study approach. The final unifieris its system of communication which includes the four important concepts of scale, areal association, spatial interaction and regionalizing. The scope of the geographers' inquiry has been given by Professor Greco of Syracuse University.

1. Every geographic area is affected by physical, biotic, and societal forces.
2. The impact of these forces on a geographic area creates similarities among areas. These similar areas are called uniform regions. They are relatively stable in character.

3. The similarities among different areas have been brought about through different combinations of physical, biotic and societal forces.

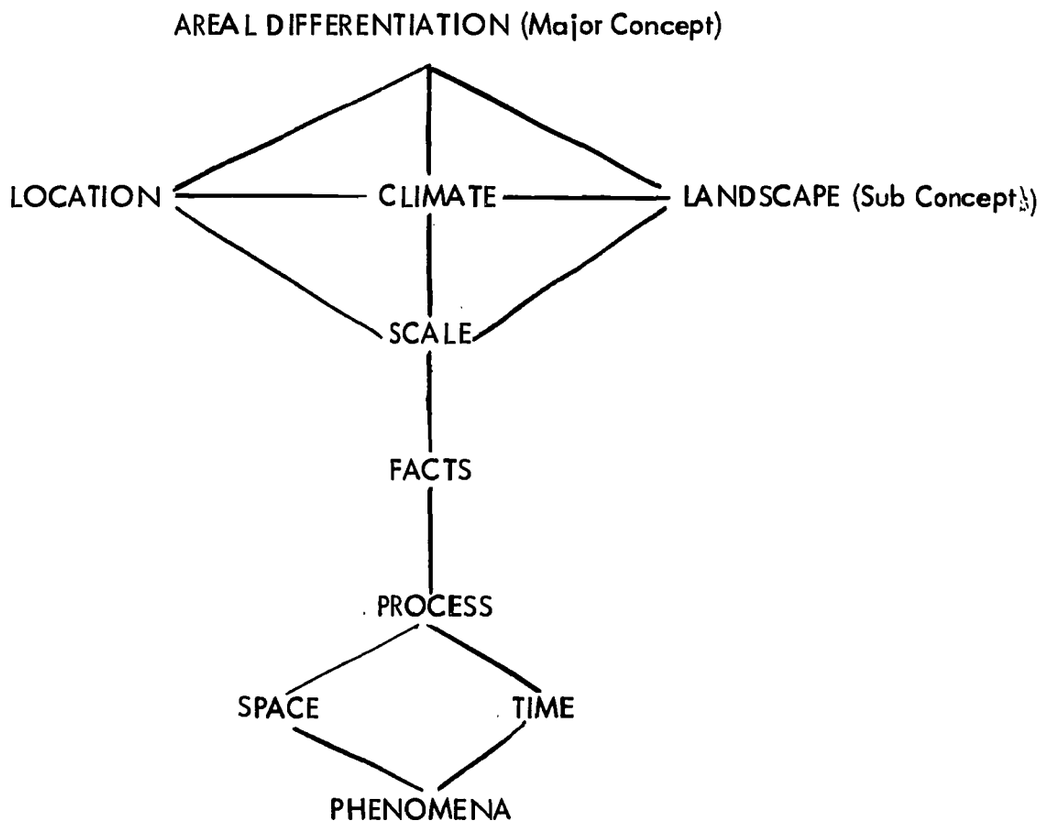
4. An area may be kept together through a pattern of circulation binding the area to a central place. This area is called a nodal region, held together by functional relationships. The nodal region is dynamic in character.

5. Uniform and nodal regions are often related to each other through gravitation to the same central place.

The scope is illustrated further in the accompanying diagram (Figure 3). It is this scope which will form the basis for our curriculum designed to study the growth of the city, the classroom application of which is the aim of this sub-project. In defining and studying regions, geographers are concerned with physical, economic, sociological, anthropological and political facts. If all this is put in a historical context then we will provide a partial synthesis of all the facts which go to determine the present structure of the city.

Approaches to the Study of Urban Geography. In urban geography the urban geographer usually approaches his study from two points of view. First, he considers towns and cities or phenomena in the general fabric of settlement of the earth as a whole, or part of it. As such they may be analyzed in much the same way as any other phenomena similarly distributed. Concepts and generalizations may be formed regarding a city's size, function, rates of growth etc. Areas served by urban centres may be delimited and the interactions between the urban places and their tributary area and the urban places themselves may be analyzed.

Secondly, the urban geographer studies cities in terms of their layout and build -- their physical structure or morphology -- considered as expressions of their origin,



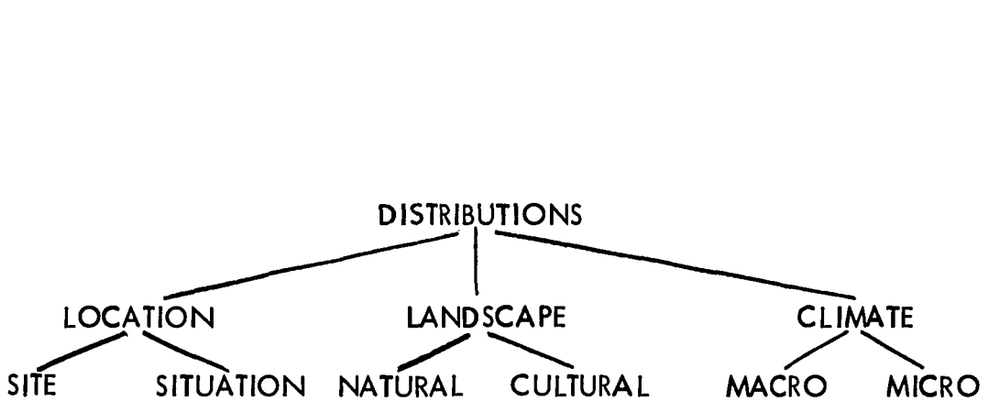


FIGURE 3. THE SCOPE OF GEOGRAPHY

growth and function. In any general study of an urban settlement the geographer is concerned with three main problems: first, the physical and cultural conditions that were involved in the origin of the settlement; second, the reactions of this original nucleus, in its functional and morphological development, to the impact of historical events; third, the physical structure and organization of the contemporary settlement viewed both as a whole and in its component parts. The historical, or developmental treatment is used since the physical structure of a settlement is determined by process -- i.e. the economic, technological, political and social character of the community working through time.

Site and Situations. The first task of an urban geographer is to determine precisely the characteristics of the site and situation of the settlement. The site is the ground on which the city began and over which it has spread. Site conditions may have been important in fixing the locations of the city and may have influenced its physical growth.

Cities are affected by the nature of the physical environment both of the immediate locality and the surrounding regions. The site, on the ground occupied by the city and over which it has spread may have helped to fix the location of the original nucleus, e.g. by providing a bridging point, or a defensive position for a fort, a nodal point at the junction of waterways, a water supply, etc. The terrain may also affect the subsequent development of a city. Physical features often act as barriers to development, segregating land use and social groups. River and ocean inlets are notorious in this respect: on river sites growth may begin at separate points, e.g. Vancouver and Saskatoon. The effect of terrain in the early stages of settlement may lead to several commercial areas in the structure of the present urban area. Of all the

major cities in Canada only Regina with no major water features is unaffected by the terrain.

The nature of the terrain may also affect the distribution of land uses. Areas offering a view and/or clean air -- hills, river banks, lake shores, rivers, etc. -- are most likely to be occupied by residential and recreational uses. Retail and industrial enterprises seek flat, open land. Sometimes the most attractive sites in the city are occupied by subways, wharves, factories, a phenomenon dating from earlier periods of development. Railway companies and industrial concerns, exerting their economic power, could run tracks through the centre of the city and build factories on lake shores.

The structure of the city may also be affected by the geology: certain soft bedrocks and unstable areas, such as shifting river banks, may not support high rise office or apartment buildings.

Climate, another physical aspect of the site, may influence the layout and designs of buildings. In windy climates curved streets and architectural enclosures are an advantage. The direction of the prevailing winds may affect certain locations: industrial areas are commonly on the leeward side of the city with respect to prevailing winds.

There is often an intimate connection between climate and architecture. To take a few simple examples: steeply pitched roofs in wet and snowy climates; enclosures and courtyards in hot sunny climates; thick walls and small windows protected from direct sunlight; in cold windy climates buildings should hug the ground and be provided with special insulation, small windows to reduce heat loss and the protection of fences and trees.

The architecture, for aesthetic purposes should also be suited to the terrain. Prairie, wooded and mountain sites each call for different forms; e.g. on the prairies severly horizontal or severly vertical styles exemplified by the low spreading ranch house and the grain elevator and office tower seem particularly suited.

Situation is usually taken to mean both the physical and human characteristics of the surrounding country. These greatly affect the character and the future of the settlement. Cities exist primarily to provide goods and services for the people who live outside the urban boundaries -- these external relationships by bringing money into the city, are the most important factor affecting its growth.

Nodality, or the accessibility of the city to the region, often resulted from the convergence of natural waterways. Indirectly, the physical characteristics of the region which include such resources as soils and minerals affect the city by their influence on the economy of the region. The regional economy, and the city's role in it, are the chief determinants of the city's growth. This will be discussed later.

Economic Factors. Cities exist, primarily, to provide goods and services for the people who live outside the urban boundaries. Mark Jefferson observed over 20 years ago: "Cities do not grow up on themselves; countrysides set them up to do tasks that must be performed in central places." Except for cities which have developed to exploit a particular resource in remote areas, e.g. mining communities -- no city lives to itself. It serves other areas which can be said to constitute the city's 'market region' or 'grade area.' A city, in other words, has a focal or nodal character which sets it aside economically, as well as physically, from the surrounding region.

The economic bond is one of the strongest ties between a city and its region and is the most important factor in the city's growth. The goods and services produced

for the regional (or even national or international) market bring money into the city. The activities producing these goods and services are the city-building or 'basic' activities and therefore constitute the city's economic foundation. These basic activities are to be distinguished from those activities which are geared, primarily, to serving the city population. These, since they do not bring money into the city, are termed 'non-basic' and involve an exchange of money which 'basic' efforts have already brought in. Examples of 'non-basic' activities are barber shops, dry cleaners, shoe repairers, etc.

The nature of a city's basic economic activities will affect its morphology or strucutre: a city whose economic base is manufacturing will differ from one whose main support is service activities, a university or government offices. The structure of the city will also reflect the health of its basic activities. Cities whose basic activities are languishing, or have left, will show signs of deterioration -- the city loses population, no new building occurs and the existing houses, stores, and utilities grow older.

Since the growth of towns is essentially an economic phenomenon it is only to be expected that the internal organization of urban areas has evolved chiefly as a mechanism to facilitate the functioning of economic activities. Within an urban area activities compete for those locations which enable them to function most efficiently, e.g. department stores depending on a high volume of sales prefer an accessible, central location; heavy industries to whom cheap land and access to rail and highway networks is an essential requirement, prefer suburban locations. Since all activities within the same cultural realm have more or less standard site requirements a pattern of land uses develops which is basic to all cities. Thus, all North American cities,

despite differences in setting and economic role, have much in common.

Technological Factors. The urban form has been profoundly altered by technological change. Innovations in technology have needed, for their success, a favorable economic and social climate -- e.g. steel frame construction and the elevator made possible high-rise apartments but a high level of demand and the availability of investment capital were needed to produce the current proliferation of apartments. In the same vein railway building would have been impossible without government investment and encouragement, and the promise of future prosperity.

Technological changes have transformed both the ground plan and the profile of cities. In their gross effects changes in transportation have been the most influential -- the railway, the street car and the automobile have greatly affected land uses and the general layout of the city. It is probably not too much to say that the automobile lies behind most of the recent large-scale changes in the physical form of the city -- suburban growth, decentralization of functions, etc.

Changes in both the profile and the texture or the urban landscape have resulted from the use of new materials, design and building techniques.

Political Factors. In order to modify the activities of the market place citizens intervene through a variety of public institutions. Through its planning agency the city is directly and visibly concerned with the development of land. Zoning, subdivision control, urban renewal, land assembly, and building codes are all concerned with the improvement of the urban landscape chiefly through controlling the activities of the market which does not always act in the public interest. In general, the planning process in Canada is no match for the powerful forces of the market when large

financial gains or losses are at stake.

Potentially, one of the most powerful forms of public control are decisions concerning the provision and location of public services: transportation networks, electricity, water and sewage lines. Used effectively these can greatly influence patterns of growth within the city.

Government decision may also affect the growth potential of a city - e.g. the decision by higher government (provincial or federal) to build new roads, railways, hospitals, schools, etc. or to close or abandon these, will greatly affect the future of the city. So, too, will decisions about subsidizing existing industries and offering financial incentives to new ones.

Cultural Factors. Cities are social as well as economic phenonema and the urban landscape reflects the tastes, values and requirements of the people themselves. Consider, for instance, how the preference for family as opposed to communal life, the willingness to commute from home to work and attachment to the automobile have affected the shape of our cities.

If the city is an old one purely local tastes and preferences will distinguish the urban structure. If, as in the case of the Prairie cities, it is a modern growth the urban landscape is more likely to reflect national or continental tastes rather than local or regional ones whose growth was stultified by the advent of mass communications and rapid transportation. In such cities only immigrant groups with a different cultural background are likely to make their mark on the urban landscape -- churches, delicatessens, etc.

The city landscape will also reflect the length of the urban tradition in the

country or region. If it is a long one the city will probably possess sophisticated forms -- fine buildings, pleasing architectural groupings (squares, enclosures etc.) paths and gardens. If, as in Western Canada, it is short or nonexistent the forms will tend to be functional or utilitarian.

Historical Development. Having determined the conditions of site and situation which affected the origins of the settlement and its subsequent development the geographer then analyzes the physical growth of the city in the light of economic, technological, etc. developments. He may find it useful to survey the physical structure of the city at critical stages in its growth -- viewed as an expression of the processes mentioned above.

Each of these various processes (economic, political, technological) shaping the city's outward form must be seen in their historical perspective (See Figure I). At each stage in the city's growth decisions are made and actions are taken within the general cultural context of the time and although they may be rendered obsolete by changed conditions they often leave a lasting impression on the city.

The core of the city is normally the point of initial settlement, growth having expanded outward from that point. The centre may shift a little with time but normally not very far. Other lasting effects are made by early trails, and the original survey system determining roads, block and lot sizes. Subsequent decisions about the city's form are made within the existing framework.

All cities are museums of a kind in that they contain large numbers of old forms -- buildings, street patterns, etc. These do respond to changes in function, but the change is slower than functional change, so that new functions often have to make do with old forms.

The Physical Structure or Morphology of the City. The main object of the geographical approach is the present urban landscape -- the latest stage achieved through the processes mentioned earlier. In their analysis of city structure, geographers attempt to identify patterns of land use in functional zones. These are parts of the city given over wholly, or largely, to a single use or function -- commercial, residential, etc. -- resulting from the selective processes at work during the city's growth. These different uses and their connecting streets, which make up the component parts of the city, interact with each other (roughly in the same way as the rooms and hallways in a hospital). The geographer studies both the parts and their interrelationships.

The Present Urban Landscape: Patterns Within the City. After an urban centre reaches a certain size the competition for sites leads to a sorting out of functions so that it becomes possible to distinguish functional or land use patterns. These patterns are the result of all the developmental decisions made in the city's history each are made within the context of a particular set of economic, political and social conditions.

Although elaborate typologies of land use have been developed, all land uses can be conveniently subdivided into a few categories: residential, industrial, commercial, institutional -- all tied together by the street networks. The allocation of space to these categories of land use varies only slightly from city to city: residential uses take up most of the city land followed by streets and roads. Industrial and commercial uses, which sustain the city, occupy only a small percentage of the total area.

Once an area is characterized by a particular type of land use, the use generally continues for a long time due to capital investment in buildings, roads and

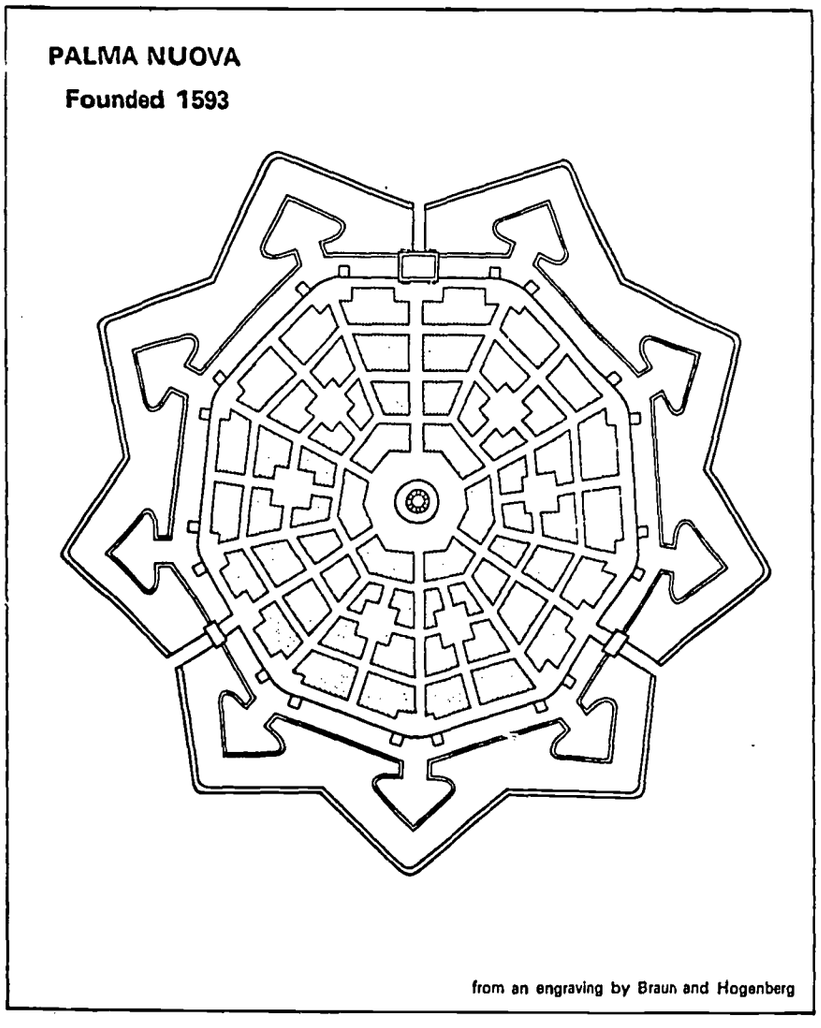


Fig. 3 Palma Nuova, an ideal city. (*Source*: redrawn and simplified from an engraving in Braun and Hogenberg, *Civitates orbis terrarum* (1599).)

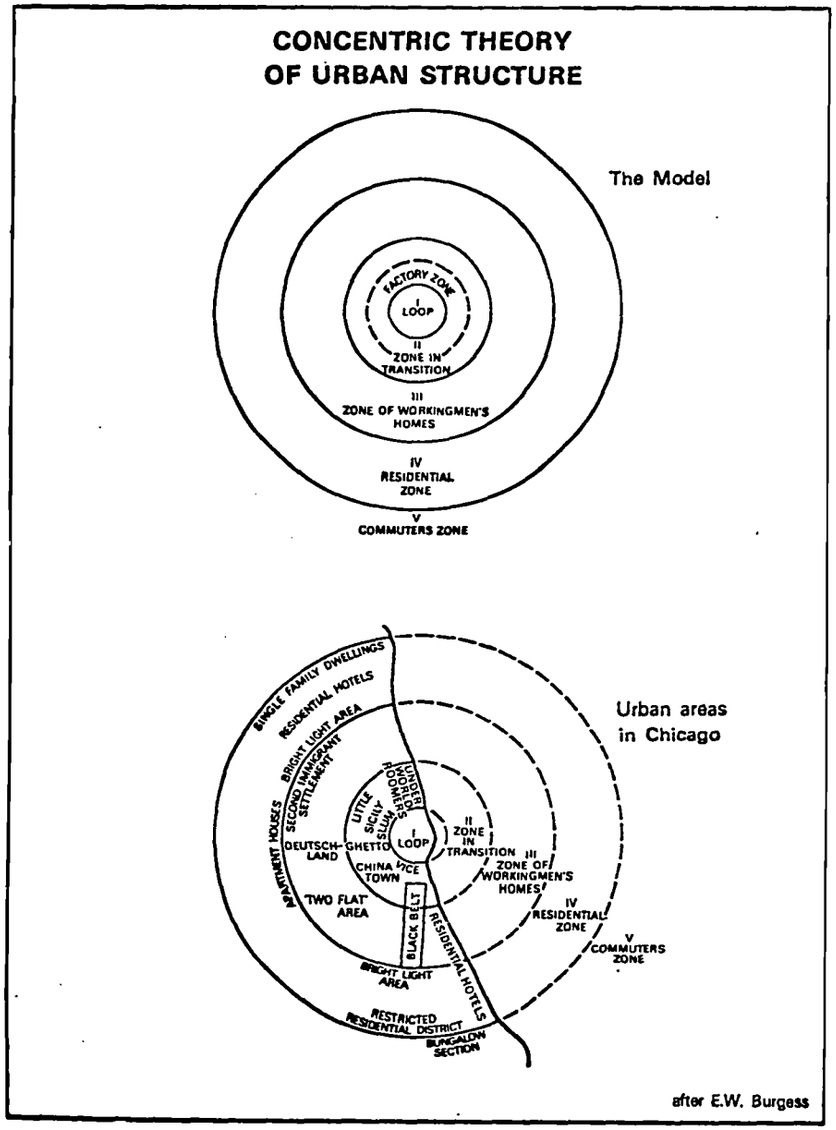
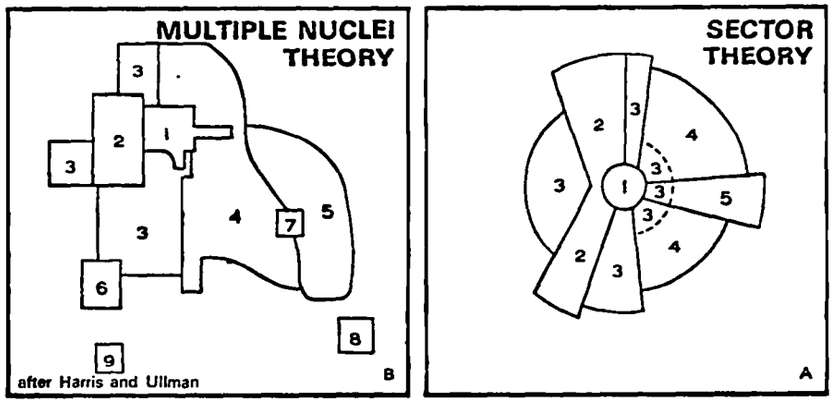


Fig. 4 The concentric theory of urban structure. (*Source*: Park, Burgess and McKenzie (eds.), *The City* (1925), pp. 51–3.)



Central Business District	1	Heavy Manufacturing	6
Wholesale Light Manufacturing	2	Outlying Business District	7
Low-class Residential	3	Residential Suburb	8
Medium-class Residential	4	Industrial Suburb	9
High-class Residential	5		

Fig. 5 The sector theory and the multiple nuclei theory of urban structure. (*Source*: Harris and Ullman, *Annals of the American Academy of Political and Social Science* **242** (1945), 13.)

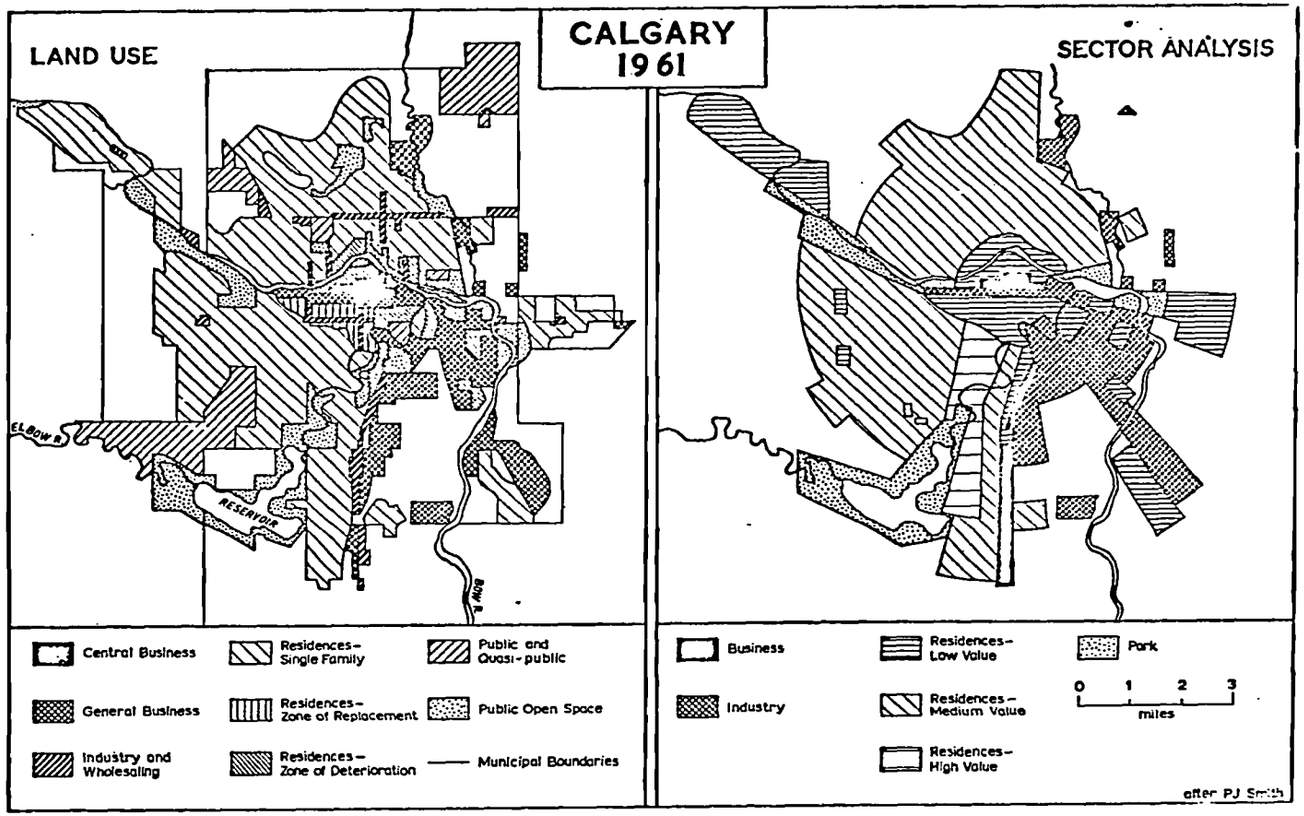


Fig. 6 Calgary, 1961: land use and its interpretation by sectors. (*Source*: Smith, *Economic Geography* **38** (1962), 318 and 328.)

utilities. Zoning, too, operates to preserve existing uses by discouraging a mixture of activities thought to be incompatable, e.g. heavy industrial and residential uses.

In most cities it is possible to discern a rough, concentric arrangement of land uses representing the historical phases of the city's growth. The central zone, the business district, is the original nucleus -- the historical core of the town. Surrounding the core is a middle zone or older residential suburbs characterized today by boarding houses, flats and high rise apartments mixed with commercial uses where this zone borders the central business district. This zone tends to be fully occupied, most of it built up before the coming of the automobile.

The outer zone represents the latest extensions of the city -- the newest subdivisions of largely single family houses, shopping plazas and industrial parks. Urban uses extend outward from the city along the main highways into agricultural land.

In this outer zone the land is less fully occupied than in the central area -- lower land values, increased demands for space, and increasing mobility making it possible to live away from the centre.

In some cities the land use patterns, instead of being arranged concentrically, extend outward from the centre in sections, usually along the main highways. A combination of concentric and sector patterns is a common arrangement.

The analysis of the urban structure may be approached regionally, by examining the concentric zones or sectors, or systematically by examining specific land uses. In the Saskatoon study the latter method will be used since it leads to a better understanding of the requirements of specific land uses and because the zonal structure of the city will be dealt with in the historical survey of the city's growth.

Commercial Uses. Commercial uses occupy only a fraction of the city -- usually less than 3 per cent of the total land area. The largest concentration of commercial uses is in the city centre -- centre is the point of the convergence of transportation routes and is the most accessible part of the city and the region. Here is found the most sought after land in the city and therefore the highest land values -- peak land values are usually at the intersection of the two main streets. Tall buildings are a response to the high land values.

Although the centre is not entirely devoted to commercial uses they dominate the area. The ground floors are given over, largely, to retailing -- stores requiring a large volume of sales, such as department stores, or specialty stores requiring access to large numbers of potential customers such as jewellers, clothing stores, etc. Some of the stores -- drug stores, cigar stores, supermarkets -- serve either the day-time population of the area, or local residents, as do the lunch counters and barber shops.

The upper floors are mainly occupied by offices -- lawyers, insurance firms, dentists, doctors, etc. The main attraction of a downtown location is accessibility for both customers and employees, although for many firms the prestige associated with a downtown location is important. Another attraction is that a downtown location allows easy, face to face, contact between related concerns -- legal offices, insurance and finance companies, advertising and personnel agencies.

In the centre, too, are found the city's main theatres, hotels, government buildings and libraries, all taking advantage of the centrality.

The central business district is the fastest changing, most dynamic, part of the city -- the result of the competition for land and the struggle amongst commercial enterprises to stay solvent -- up to 25 per cent of the stores either go bankrupt or

change ownership every year. The areas of greatest change are commonly on the edges of the district where commercial uses impinge upon residential land. Here, often in the vicinity of the railway and bus stations, older manufacturing and wholesale districts are areas of decay characterized by cheap hotels, pawn shops, used car lots, etc.

A significant feature of most city centres is the increasing amounts of land devoted to the automobile -- parking lots and multi-level parkades -- to accommodate the increasing numbers of cars who want to enter the downtown areas. Traffic congestion is now a problem common to nearly all centres.

Commercial uses are also scattered around the suburban area. The oldest of these outlying commercial areas are along the street car lines -- a response to suburban growth and offering mainly staple goods and services. In addition are a variety of shopping centres ranging in size from a small neighborhood centre comprising a supermarket and drug store to the completely planned shopping plaza offering a wide range of goods and services -- department stores, supermarkets, banks, dentists, etc. These are in direct competition with the central business district and, because of their accessibility to car owners and parking facilities, they have reduced central area sales. Many cities, concerned over the future of the city centre, have undertaken redevelopment schemes.

Residential. This element is the largest single land use since it takes up about 30 per cent of the total area of the city. These areas conform to a general pattern consisting of a belt of considerable density around a central business district. Next comes an area of older, once fashionable homes, now deteriorating intermixed with low rental and rooming houses and tenement buildings. This is the locale of the area

often referred to as the slums. There is another district in the peripheral area which is characterized by a high density of buildings and people which tends to increase with distance as one proceeds outward from the center.

The inhabitants of the inner area are the city's poor, the old, the underpaid, the recent immigrants from the rural area or from abroad, Indians, Chinese, Negroes, and others who are attracted to this area by the prospects of low rental and in the hopes that they will find people of their own kind.

The more successful move out of the area thus beginning a filtering down process of passing on houses to successively lower income groups as the supply of adequate housing is produced for the higher income groups. This often becomes a district of high social costs due to overcrowding (more than one person per room, often one family per room), unsanitary conditions, high mortality rates, delinquency, high incidence of broken families and mental illness.

In the more attractive districts there is a sprinkling of new high rise apartments whose occupants are well-to-do single people and older couples without children who want to be close to downtown.

Older, run-down residential neighborhoods are the focus of urban renewal activities. The main objectives seem to be to clean up the city center, improve the tax base, and rehouse the poor. The suburbs are a response to the improvement in methods of transportation such as the automobile and the street-car. This creates a greater demand for space linked with increasing affluence and government guaranteed mortgages through National Housing Acts and through the growing urban population. The suburb is the product of two revolutions. The technical revolution that put the family in the car and the social revolution (began as a result of the depression) which

gave the family a home in the suburbs.

One result of this development is the scattered and disintegrated city usually referred to as the "urban explosion." This is the region of single family dwellings, duplexes, and modern apartments all with low densities of population. The general characteristics of this is the uniformity of the housing with the resulting standardized home. The economics of house building are heavily loaded in favour of standardization both in original construction and in subsequent maintenance. Zoning bylaws and building codes further add to the degree of standardization and uniformity. Such restrictions as the amount of setback from the front property line, the types and functions of buildings, regulations as to the type and placement of fencing are a few of the examples.

The early suburbs were unplanned thus they formed a featureless gridiron of streets surrounding the older city. From the early fifties on there was more planned development which incorporated the principle of the neighborhood concept. The general principles include the following:

a) an elementary school focus on each neighborhood having a population of 5,000.

b) a layout of interior streets that would discourage through traffic.

c) a shopping center on the outside corners of the neighborhood area.

d) approximately 10 per cent of the land area reserved for parks and recreation.

The objectives of the neighborhood development were to provide a safe, congenial environment for families rather than to build communities. The advantage of the neighborhood system is that they permit an easy assessment of community requirements such as schools and stores. It is difficult to determine need for these

services if there are no districts that are so demarcated.

Sometimes - as in the case of Saskatoon - neighborhoods are grouped into districts that, with the exception of the apartment districts, are suburban dwellings with low densities of population. These areas are impossible to serve adequately with public transit systems thus the suburban dweller is forced into the use of his automobile for practically all of his needs.

In some cities the residential areas have a sector-like pattern rather than the concentric zones arrangement previously described. These form sections along main transportation lines, rivers, lake fronts, and so forth. The high class residential areas tend to occupy high ground which offers a view and is relatively free from floods. The poorer residential areas extend outward from the older industrial areas.

The different social groups sort themselves into regular patterns. Pressures of income and family size coupled with historical accident or initial location produce remarkably homogeneous neighborhoods with similar age, income, and ethnic backgrounds. These often remain stable for long periods of time and change (if it does occur), may involve the wholesale shift of the population of the entire section.

Industrial. Seldom is more than 5 per cent of the land area in industrial use. The industrial use does appear to follow some general patterns which can be identified as:

a) Older industrial districts, or railways, or waterfronts, sometimes located in the heart of the city.

b) industrial concerns that are dependent upon proximity to the central business district. These are usually very small and often occupy upper floors of buildings. Some of these are job printing, jewellery and furniture shops.

c) scattered factories in residential areas (more often in the poorer residential districts). These are generally light industries such as bakeries and ice cream plants.

d) outlying industrial districts usually beyond built-up areas. These are attracted by space, cheaper land, lower taxes, and less stringent regulations. Often plants of the noxious or dangerous type such as oil and chemical plants, meat packing plants, or plants requiring large amounts of space make up this group.

e) organized industrial districts or parks which are areas that are comprehensively planned for a community of industries with the streets, rail spurs, utilities, and landscaping developed privately or by the community. These sites are ones that prefer the freeway and involve, in general, light industries or non-offensive types. The industrial park is the dream of many a small, tax burdened community

The locational changes of industry are most common in the shift from the central to the suburban areas. There are now greater space requirements. Since 1910 there has been a trend towards the horizontal production lines and the single assembly line plant. These require employee facilities such as cafeterias, locker rooms, dispensaries, recreation areas, and employee parking lots. There is a growing concern over plant appearance hence a trend towards landscaping and self-sufficient plants where tool and die, paint, and carpenter's shops all tend to be on the same premises.

Decentralization has been made possible through greater employee mobility, the automobile and mass transportation. Also zoning codes have discriminated in practice, against industry since it has not been regarded as a "higher" form of land use. As a result it is often relegated to land that nobody else wants such as swampy, ill drained areas. This is especially true of the heavy industrial concerns. Although expensive residential areas are protected by zoning from industrial encroachment the converse is often not the case since industrial plants sometimes are engulfed by suburban growth.

The simple classification of industries into light and heavy varieties is becoming obsolete. More attention should be paid and is being paid to performance standards.

Zoning codes arbitrarily withhold recognition of improvements in process and should be replaced by performance standards.

Urban Fringe. The urban fringe is the zone between the continuously built-up area of the city and wholly agricultural land. It is distinguished as ribbon developments along the highways in such forms as gas stations, dance halls, motels and residences escaping city taxes. There are some low, wasteful densities in the interstices.

Many of the uses are excluded from the compact urban area with such items as golf courses, junk yards, airports, cemeteries and trailer camps.

The peripheral land is usually in the hands of speculators and as a result land values are boosted to the point where agricultural use no longer pays sufficient rent for the land. The area of unused agricultural land that is awaiting development by private developers is commonly composed of an area twice that of the built-up area of the city. There is a wave of speculation in advance of city growth which is often 20 to 50 miles from the center of large metropolitan cities. Saskatoon is one of the few cities with a public land assembly policy for control of suburban development.

Appraisal of the Urban Environment and Future Change. Any general survey of a city, if it is to serve some socially useful purpose must go beyond an objective (value free) analysis of its functions and structure. A city isn't merely a collection of building blocks, whose arrangement is designed to serve basically economic ends, but a habitat which will be, and should be, judged as such. Efficiency, although important since the city must be workable, ought not to take precedence over social needs i.e. old, coherent neighborhoods ought not to be broken up by freeways simply to improve access to the business district.

The student, therefore, ought to ask himself whether the city is serving the needs of the people in general or only some of them, e.g. the well-to-do, the business interests, the politically powerful, etc. He ought to address himself to the problems posed by slums, pollution, the lack of parks and playgrounds, excessive noise, etc. and ask whether they can be solved by government intervention and legislation on a technological fix, or whether the solution calls for fundamental social and economic change. The problems of the city are the problems of society and they are concentrated in the city because this is where most people happen to live.

The environment should also be assessed from the point of view of aesthetics and utility, e.g. is the architecture pleasing or ugly? is the design and layout of the buildings adjusted to the terrain and the climate? is advantage taken of river banks, lake fronts, and elevations? are the streets cluttered with signs, etc?

In addition he might even ask how the environment affects behavior (environmental psychology)...

V A SUGGESTED CONCEPTUAL FRAMEWORK

A Conceptual Framework

The following lists represent some of the major concepts which may be studied at different levels of interest and ability. The list is by no means complete and will, no doubt, be revised several times during the course of the sub-project. The list does contain some of the more important ideas which, at first sight, seem particularly applicable to our work. As it is so difficult to separate anthropological and sociological concepts, these have been placed together.

Anthropology and Sociology

1. Culture is learned and is reflected behavior.
2. School and family have traditionally provided opportunities for learning.
3. Families in similar neighborhoods tend to develop similar cultural traits.
4. Communities develop institutions to meet the needs of the people.
5. Communities establish accepted patterns of behavior.
6. Man is critical of his culture and may seek its change or improvement.
7. In modern industrialized society, change is very rapid and does not occur evenly in all its parts.
8. Cultural lag occurs when all or part of an industrialized society exhibits little or no change.
9. Cultural lag may be a prime cause of stress in a society.
10. Classes of people in the city are related through status and/or discrimination.
11. In any given society, there is pressure to conform to prevailing practice.
12. At any given time, the mores of a society will make anything seem right or wrong.
13. The city is characterized as being a large community with a heterogeneous population with a high degree of physical mobility.

14. The city is characterized as being an impersonal entity.

15. The city caters well to him who desires privacy but if privacy becomes excessive, utter loneliness will result.

16. In any group there must exist a unity based on essential values and a feeling of satisfaction in belonging to the group.

17. When values and norms cease to be acceptable to some people, rebellion results.

18. The city is a most dehumanizing structure and must either be changed or restructured.

19. Improvements in transportation and communication have brought cultural areas into close contact thus facilitating change and diffusing boundaries.

20. Conflict between cultures is reduced when each culture understands and appreciates the other.

21. Inventions and/or discoveries in one field will effect developments in others.

22. Laws and court decisions influence human behavior and help to change ideas and attitudes.

Economics

1. Division of labour increases the efficiency of production.

2. Working members of society receive money wages to buy goods and services.

3. Goods and services which can be bought with money wages are called real wages.

4. Spending decisions influence production of goods and services.

5. The relative scarcity of goods means that individual choices must be made.

6. Individuals, cities and even countries specialize in the process of production.

7. Community services are provided by its government and are paid for with taxes.

8. People may save part of their income in a variety of ways.

9. The amount that people earn depends on the skills or abilities they possess and the demand for those skills and abilities.

10. Man's effective use of machines has increased productivity which has influenced standards of living.

11. Transportation is an important element in the economic structure.

12. Specialization in production can be equated with efficiency in production.

13. Abundant natural resources do not automatically ensure a high standard of living.

14. Over-specialization may cause economic stress.

15. Underdeveloped countries lack capital.

16. The development of machines has changed Canada from a primarily agriculture-producing economy to an industrial economy.

17. Desires of individuals or small groups will sometimes conflict with the public interest.

18. In some instances interference by government in the economic process is both necessary and desirable.

19. The use of money followed by the extension of the banking system has increased the opportunities for trade and commerce.

20. Savings and investment ultimately determine the nature of the economy.

21. Industrialization has created problems which include the need for a more equitable distribution of income and the need to match productive capacity to newly created wants.

22. Problems in industrialization are products of specialization and automation.

23. The position and size of a city is related to its economic growth and its function.

24. Growth may occur at different rates in various economic sectors thus affecting the developmental rate and pattern of a country or city.

25. In the service industries there has been a slow rate of productivity growth but a rapid increase in demand.

History

1. The actions of or changes instituted by people in one time may affect those in another.

2. Changes which occur in a city as it develops follow a recognizable course.

3. Customs and traditions are passed on to succeeding generations.

4. Every person is important as an individual and has certain rights and liberties.

5. A city tends to be a product of its past and to be restricted by it.

6. Rapid growth of a city creates problems.

7. Changes in the internal structure of a city are affected by and in turn affect, its external relationships.

8. Some communities change more rapidly than others.

9. Traditional ways of doing things may outlive their usefulness.

10. Changes in leadership in democratic community usually take place peacefully.

11. Political institutions tend to persist in their original form or to change reluctantly.

12. The degree of interference with an individual's liberty varies with the complexity of the society and the values of the culture.

13. Recent changes have occurred and are occurring at such a pace that no individual will live all his life in the same kind of world into which he was born.

14. Power groups, institutions and tradition are often opposed to change.

15. The development of social, political and economic institutions is always influenced by what has gone on before.

16. Technological progress has advanced at a faster rate than social progress.

17. In Canadian society, citizens are expected to obey the law and to use only lawful means to correct injustices.

18. Technological developments tend to encourage economic and social change.

19. Urbanization is bringing about changes that are creating new problems that demand critical analysis by informed citizens.

20. Each impression of an event is influenced by the experience and culture of the observer.

Political Science

1. The rate of growth of a city in Canada is not within the bounds of conscious control.

2. People migrating to the city tend to seek out their own kind.

3. Political control by different groups will lead to a conflict of interests.

4. The political control of a city outside its limits is itself limited to other planning considerations.

5. Some urban development may take place purely as the result of a political decision.

6. New urban development will affect purchasing and traffic patterns in different ways.

7. One political decision will in part determine future political decisions.

8. Political leaders are elected by members of the community.

9. People working together are more effective when they accept the differences found in the group.

10. A community is most efficient when each individual assumes his or her full share of responsibility.

11. Local forms of government vary from one community to another.

12. Each segment of government develops its own laws which are applicable only within its own jurisdiction.

13. As society becomes more complex it requires and develops more laws.

14. Autocracy develops when citizens fail to act responsibly.

15. Urban development may be a function of city council attitude and provincial powers.

16. Government grants will affect the development of an urban area.

17. The composition of the city council will affect political decision-making.

18. The structure of the tax base may be such that the property owner subsidizes the businessman.

Social Psychology

1. Cultural factors in the urban situation affect behavior patterns.

2. The culture offers the individual a choice among roles which are usually limited.

3. Tension in an individual may result from conflict between the demands of his role in society and the interest or skill he has in it.

4. Tension will arise when an individual is living in conditions which are not compatible.

5. The city tends to depersonalize human relationships.

Urban Geography

1. An urban society presupposes a complex society involving a surplus of production which enables a division of labor.

2. An urban settlement contains those people not directly concerned with the production of food and raw materials.

3. There are reasons for settlements existing as and where they are (economic, political, cultural and strategic).

4. The main reason for the existence of urban settlements in Canada is to fulfill an economic function within the economic structure of the country as a whole.

5. Cities exist primarily to provide goods and services for people outside their urban boundaries.

6. The goods or services provided to the region or nation are city building or "basic" functions.

7. Each settlement is part of a definite pattern and its position in the pattern depends upon its economic role within the region or nation as a whole.

8. There is an hierarchy of urban centres in a region which is a response to economic demand.

9. The economic functions of any urban centre is dependant upon the economic structure of the region and its part in the country as a whole.

10. The nature of the economic structure in an area is a result of the physical characteristics of the area as well as the technological ability to use the same.

11. Any city performs a variety of functions within its region.

12. The location of an urban settlement is a result of optimum position to fulfill its primary function and the suitability of the physical site to enable the performance of this function.

13. The regional economy and the city's role in it are chief determinants in city growth.

14. The primary function of a settlement can change in part or completely due to economic or technological change in the region.

15. Changed functions can make an existing location not ideal.

16. "Geographic inertia" will maintain a settlement which is not ideally located, as long as it is economically feasible.

17. If the basic regional functions of a centre disappear and are not replaced, the settlement will likely decline and die.

18. Changes in the functional role of one urban settlement in an area will often result in changes in any other settlement.

19. The elements of urban morphology are transportation networks, groups of buildings in lots and blocks as well as the pattern of land use.

20. The character of the physical structure of any settlement theoretically reflects the basic functions it performs, its physical environment (site, climate, etc.) as well as the cultural aspects of its inhabitants.

21. The health of a city's basic activities is reflected in the physical structure.

22. Climate may be reflected in the architecture, house design and building materials.

23. Man tends to impose accepted ways of living (culture) on new environment.

24. Man is capable of imposing unsuited physical structures on a new environment.

25. The physical site characteristics can affect the urban structure in a variety of ways, i.e. bedrock can affect construction of tall buildings; the irregularity of terrain may affect the street pattern.

26. The cultural background and values of the inhabitants are often reflected in the physical structure.

27. The willingness to commute from home to work and attachment to the automobile have affected the shape of our cities.

28. The physical structure of a city tends to last longer than the people and functions that gave it its original form.

29. The structure tends to become "antiquated" and may impede the efficient operation of future functions.

30. The old structure is generally adapted rather than replaced because of the size of the initial investment.

31. Any city will illustrate forms that provided for earlier functions, adaptations and readaptations -- providing a complex structural matrix.

32. Buildings are more easily changed or adapted to new functions than block or street patterns because of the multiplicity of lot owners.

33. Buildings are often adapted to enable the operation of other activities in the small shell.

34. The oldest areas of the city are usually the most unsuited to present functions.

35. The city landscape reflects the length of the urban tradition in a country or region.

36. The city is a fundamental entity in that it provides goods and services for its inhabitants as well as the region.

37. The "non-basic" functions of a city are those that do not bring money in, but rather satisfy the needs of its inhabitants themselves.

38. The ability of a city to meet its internal needs (water supply, sewage, etc.) can affect the growth of the city.

39. Rivers, railways, freeways and institutions often act as barriers or "edges" affecting the extent and nature of development in particular areas of the city.

40. Political decisions (from three levels of Government) can directly or indirectly affect the structural development of a city.

41. Activities compete within an urban area for locations which are most suited to their functions.

42. A pattern of land uses develops within an urban area as the requirements of the types of activities vary.

43. The most common types of land use found in cities are Commercial, Industrial, Residential and Recreational or Open Space.

44. Once an area is characterized by a particular type of land use the use generally continues for a long period of time due to capital investment.

45. The pattern of land use usually has a roughly concentric arrangement representing historical phases of growth.

46. Land uses may be arranged in sectors along main highways, or around a number of nuclei.

47. The relative area given to particular uses is similar throughout Canada (and North America).

48. Commercial areas usually occupy only about 3 per cent of the city's total land area.

49. The commercial area is concentrated in the city centre as it is the historical focus for traffic routes.

50. The city centre is usually the most accessible part of the city to its inhabitants of the region and of the city itself.

51. The highest priced land is located in the city centre as it is the most sought after.

52. Tall buildings in the city centre are a response to high land values.

53. Types of commercial activities (i.e. clothing stores) tend to be grouped together in areas of the city centre.

54. The central business district is the fastest changing, most dynamic part of the city and the result of competition for land and the struggle to stay solvent.

55. The uses of the bottom floors of tall buildings are usually commercial outlets, differing from those of the upper floors which are usually offices, etc.

56. The most specialized shops of a city are usually located in the city centre.

57. Being the oldest part of a city the commercial centre tends to become the most antiquated -- but it is generally economically feasible to change its structure to suit new conditions.

58. If not continually adapted to maintain maximum access, the city centre is subject to decay.

59. The development of commercial areas in suburban sections of the city result from congestion and distance from the downtown area.

60. Commercial development can take a "ribbon" form along major thoroughfares.

61. "Ribbon" developments, because of the distance factor encourage motor traffic yet provide limited parking.

62. An hierarchy of "cellular" commercial areas usually develop in suburban areas - ranging from those providing local convenience goods to regional shopping centres.

63. Cellular commercial areas are located along major thoroughfares and generally provide adequate parking facilities.

64. There are usually definite patterns in the organization of types of outlets in cellular shopping centres.

65. The growth of "cellular" commercial areas is easier controlled than that of ribbon developments.

66. Regional suburban shopping centres often compete directly with the central business district in supplying regional needs.

67. Residential areas, the largest single land use, usually occupy about 30 per cent of the total land area of a city.

68. The oldest housing (usually deteriorating) and highest density of buildings and people is found around the central commercial area of a city.

69. Roominghouses, tenament buildings and slums characterize the inner ring of the residential area.

70. The inner ring of residential housing is usually inhabited by the city's poor, old and recent immigrants -- attracted by low rents and the prospects of finding their own kind.

71. The inner (older) areas of residential land use are usually the scene of "urban renewal" schemes.

72. A "filtering down" process occurs as the more successful move out to newer areas passing the older houses down to lower income groups.

73. High rise apartments are often built within the older residential area for well-to-do single people and older people who want to be close to downtown.

74. Increasingly newer housing is found away from the centre as the growth is usually from the interior out.

75. The newer residential areas are characterized by larger lots and decreased density due to increased wealth and improved transportation.

76. Suburbs are a response to improved means of transportation, the street car, and now the freeway.

77. Government regulations (zoning and building codes) and mass production of housing have resulted in a general uniformity of housing especially in the newer residential areas of the city.

78. Government assistance (i.e. N.H.A.) has increased the number and size of single family homes.

79. The inner residential areas are usually unplanned, characterized by the featureless grid pattern.

80. The newer residential areas are usually planned on the basis of the "neighbourhood" concept which in turn are organized into "districts."

81. Provision for the separation of pedestrian and motor traffic have usually been made in newer residential areas by the use of crescents, cul-de-sacs, and curvilinear streets.

82. Different social groups (age, income and ethnic background) sort themselves into patterns within residential areas -- pressures of income and family size as well as historical accident or zoning regulations.

83. When change of social groups in residential areas occur it often involves a wholesale shift in population.

84. High class residential areas tend to occupy high ground offering a view and free from floods.

85. Poorer residential areas tend to extend outward from the centre and back from industrial areas or noisy thoroughfares.

86. Apartment buildings are usually located along major thoroughfares because of the nature of their inhabitants and attempts to use them as "buffers" for appending residential areas.

87. Newer residential areas are characterized by larger proportions of open spaces (parks, school grounds, etc.).

88. Industrial areas usually occupy about 5 per cent of the total land area of a city.

89. Older industrial areas are usually located along railways, freeways or waterfronts (sometimes in the heart of the city) due to their dependence upon large volume transport.

90. Industrial concerns located near the central area of the city are usually small and of high value or of the warehouse variety.

91. There is an increasing trend towards locating industry in outlying suburban areas where there is more space, lower land values and less stringent control.

92. The decentralization of industrial plants has been made possible by greater mobility due to the automobile.

93. Industrial plants of the noxious and dangerous type are usually located on the outer fringes of the city.

94. Industry is usually located in low value area swampy, ill drained, etc.

95. The trend is toward integrated, one storey production line industrial plants.

96. There is a growing concern with appearances and employee facilities in industrial complexes.

97. Some planned industrial communities "Company Suburbs" are located next to cities.

98. The conflict between land use activities (e.g. residential and industrial) has resulted in zoning regulations to maintain a separation.

99. Zoning operates to preserve existing uses by discouraging a mixture of activities thought to be incompatable.

100. Although expensive residential areas are protected by zoning from industrial encroachment, industrial areas are sometimes engulged in suburban growth.

101. The "urban fringe" is the zone between continuously built up area and wholly agricultural land.

102. Land uses in the "urban fringe" usually include gas stations, dance halls, golf courses, junk yards, air ports, cemeteries, trailer camps and residences escaping from city taxes.

103. Peripheral land is normally in hands of speculators many miles in advance of the built up area of the city.

104. Areas of unused agricultural land awaiting development by private developers is commonly twice that of the built up area.

105. The activities of the market place do not always act in the public interest.

106. In order to modify the activities of the "market place" citizens intervene through a variety of public institutions.

107. The imprint of planning principles has been evident in areas of development within Canadian cities since the second decade of the 20th Century.

108. Municipal authorities can only become involved in the regulation and improvement of the urban landscape insofar as provincial legislation permits.

109. Unsuited planning principles are sometimes implemented in new urban environments.

110. The quality of legislation dealing with the urban landscape is dependent upon the "enlightenment" of the legislators and the citizenry who elected them.

111. Because of the tendency to remain static once established, the physical nature of our future urban environment depends upon action taken now.

112. Population pressure and increased urbanization has tended to bring the less desired conditions of urban life to a critical point.

113. It is mainly through the political sphere that we will be able to cause the desired type of urban structure to be built.

114. In general the planning process in Canada is no match for the powerful forces of the market when large financial gains or losses are at stake.

115. A city isn't merely a collection of buildings and roads, but a habitat and must be judged as such.

116. Efficiency, although important since the city must be workable, ought not to take precedence over social needs.

117. The physical environment can and does affect behavior.

118. The present aesthetic quality of Canadian cities leaves much to be desired.

VI OBJECTIVES

A basic intent of Project Canada West is to provide learning experiences for today's young people, therefore, it is necessary to translate the myriad of legitimate discipline concepts into a statement of intended learnings or objectives for teachers and pupils. Before these objectives can be selected and organized, however, it is necessary to describe something of the types of objectives that can become part of our sub-project.

THE NATURE OF OBJECTIVES

The concept of behavioral objectives of education encompasses goals that go beyond acquiring knowledge and academic skills but, although it is not the intent to spell out any behavioral objectives at this point, it should be realized that the acquisition of knowledge is a dominant objective today as it has been for centuries. Knowledge of any sort is an index of one's acquaintance with reality. As an individual increases his knowledge he likewise increases his understanding of the world around him. Because knowledge is vast and of different levels of relevance one problem in organizing an adequate statement of the objectives of knowledge, is to achieve both a proper scope and a proper differentiation of priorities of significance. The levels of knowledge as described by Bloom represent such a sequence of priorities among the objectives of knowledge.

Specific facts have only a temporary utility as means of acquiring ideas. Therefore their acquisition and retention probably should have the lowest priority. As well as the speed of increase of factual knowledge and its subsequent obsolescence, many facts which are learned in isolation are forgotten. Thus the application of facts and

principles should be what we try to teach not merely the facts and principles themselves. Thus what we do in collecting basic material for the study of a particular city should have universal application in that similar procedures may be used in the study of any city.

The mainsprings of culture and of human motivation and action, lie in the realm of values and feelings. There seems to be consensus that the technological culture of the twentieth century is increasingly in danger of submerging its social and human values to things and techniques, whether in nuclear weapons, skyscrapers or urban renewal, and that education could or should be a countervailing force to this danger. Formulating objectives relating to values and attitudes often leads to conflicts. Does the democratic ideal regarding the worth of the individual mean that schools do not have the right to teach a value system? Is it important to distinguish two kinds of values: sacred values which relate to the democratic creed and secular values which relate to culture and the development of character? The conflicts inherent in these values are also reflected in the objectives dealing with them. There is, for example, a cleavage between the objectives which stress independence and individuality and those which emphasize the importance of obedience to rules and getting along with others. This cleavage of values produces a certain hesitancy in specifying the content of these objectives, and also therefore a difficulty in analyzing clearly the behavior involved. As a consequence, there is little to guide a teacher or a curriculum maker in deciding exactly what behaviors to seek or how these behaviors could be learned. This is particularly true at the current stage of development where concepts and content are, as yet, faint glimmerings on a distant horizon.

The objectives pertaining to skills range from the basic academic skills to skills

in democratic citizenship and group living. Skills are required in independent and creative intellectual work. They include the ability to locate and evaluate information from sources other than textbooks, and the processes of solving problems and analyzing data. These in turn suggest a need for additional skills, such as the ability to define problems of investigation, to plan a method of inquiry, to assess in a discriminating way the appropriateness and limitations of the sources for particular purposes. One of the more important skills of inquiry and/or self-directed study is the ability to master simple research skills such as tabulating and classifying information, and experimenting with different ways of organizing and interpreting. Another necessary area of skill development in the social sciences may lie in the complex pertaining to the management of interpersonal relationships and the conduct of groups. As one's value system may enter the picture at this juncture, then the overlapping of the two areas may result.

It has already been indicated that we feel that any attempt to spell out specific behavioral objectives at this time would be both wasteful in terms of time and energy expended and unnecessary. However, we have indicated that we are aware of the necessity to think in behavioral terms, and that we are aware of the areas which should be our main concern.

As has already been stated, what is to be included in the project on a conceptual basis, has not yet been finally determined. This fact is due to (1) the vast array of material which may be possible to acquire, and (2) the limited amount of time which the team members have had to acquire such material. We therefore propose that since material selection and development will be our main task for the 1971-72 phase that final selection of concepts to be learned will be made during that period. The reasons

for the selection and methods of selection will be based upon the criteria heretofore stated, the objectives which will be finally developed, and the general availability of material.

CRITERIA FOR SELECTING OBJECTIVES

Today the curriculum planners and developers are shifting the emphasis towards the disciplines. It is more of a shift towards the determination of the logical order that is to be found in the knowledge of the discipline. Bruner concludes that:

> "The structure of knowledge is the proper emphasis in education. For it is structure, the great conceptual inventions that bring order to the categories of disconnected observations, that give meaning to what we may learn and makes possible the opening of new realms of experience."[1]

The Nature of the Discipline

The discipline of geography is a study of the use of the land through the eyes of the urban men who occupy that land. It involves a study of the choices that man has to make in the proper use of the land. It is a study that involves the culture of the man that uses the land. His previous patterns have a decided effect on his present views. The choices that man makes are also dependent upon time, the structure of the space, the topography of the space, and the political and economic factors that are active in this time. Through a study of these interacting and often interdependent elements the student should be able to gain a better understanding of the relationships that exist between man and the land or better still between man and his city. In this way a student should be able to develop a more tolerant and more generous attitude towards man himself.

The study must be relevant and must be good Canadian geography. This means that it must relate to the Canadian urban society. Urban geography is not necessarily a

[1] J.W. Morris, Methods of Geography Instruction p. 19.

Canadian discipline and this seems to be less so when one considers that urban geography textbooks are mainly non-Canadian.

The study must also reflect the changes that are taking place within the discipline. A discipline that is as relevant and as up-to-date as geography must be in a continual state of modification and modernization. It must therefore be of a structure that will allow for changes to be made as they occur. It is for this reason that we have made provisions in our study for the process of up-dating by the students themselves as new changes take place both in the city structure and in the discipline.

Immanuel Kant proposed that there were only three different ways of organizing human knowledge into such portions that would be easily assimilated. He describes these three categories as; grouping things and events together that are alike because they have a common origin; grouping things and events together in order of occurrence; and grouping things and events together because they occur in the same part of the earth's surface. It is precisely the latter category which is referred to as the chorography, that is the focus of urban geography. It is this discipline that focuses on the association of things and events because they occur in the same area, namely the city.[1]

The Nature of the Learner. Another very important criteria that must be included in the choice of the materials is the nature of the learner. In order to meet the needs of the learner it is essential that we know what those needs are and to understand the nature of learning. We must investigate such problems as what are the needs of the learner? What are the interests of the learner? What are his skills and abilities? What is his maturity level? What are his values? Do they coincide with the values of society?

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[1] J.W. Morris, Methods of Geography Instruction

The student needs to develop an understanding of our values and/or the values of society, are they the same? We should be able to allow the student to develop an understanding of how the organization of the city reflects the values of the man who built it. How does it reflect the chronology of values? Have man's value judgements always been the same? Is there any change in what we believe now and what we believed in the past? These values are the things that we tend to internalize.

The best basis for introducing and understanding social relationships and values is through the study of the community itself or the city. An understanding of the environment and of the people who make up our cities is the best background for interpreting problems in a national or international scale. This study will show the relationship between the physical surroundings and the lives of people and will tend to emphasize the similarities and differences between peoples. In essence the study will show the effect of the physical environment on man's life.

The Nature of Society. The nature of society is a reflection of the goals, values and problems that it must solve. We may tend to become too concerned lest we lay too much emphasis upon certain values that could be construed as the indoctrination of certain goals that are not necessarily those of the student. Are we trying to make out of our multi-racial, multi-cultural background students, a homogeneous group of flag waving, "my country right or wrong," Canadians. Or are we trying to make them understand that there are problems in the urban setting that are severe and must be given immediate attention at our peril. Nonetheless conditions in Canadian society tend to dictate to a large extent what we select the students will learn. However, some of these conditions in society are subject to change and therefore there must be allowance

made for that change. There must be a flexibility in the nature of the study to compensate for the flexibility in the nature of our society. The nature of society is an element in itself, it is not right nor wrong, it is above rightness or wrongness.

Some of the changes in our society that must be reflected in our course of study are borne out by the following suggestions:

a) 80 per cent of our population will live in an urban center.

b) most children are not taught about cities.

c) the school doesn't presently prepare students to meet the future problems of a rapidly changing society.

Maturity of the Student. It is our purpose to introduce and to emphasize urbanization and its problems at an early age. This is due to the fact that our students are maturing earlier because of outside influences. The effects of television have made it possible for students to develop a degree of maturity of understanding and observation that was not possible in the pre-television era. They are able to see instantly, through the eye of the television camera, events and things happening in their own city and also in cities all over the world.

The more affluent of our families are able to take their children on trips throughout the local area and in many cases to other countries. The student who has observed certain events and things at first hand will be able to appreciate certain values and understanding at an earlier age. Even the families of the poor are moving. It has been suggested that the average Canadian family moves at least once every three years.

The previous courses in the early life of the students are also preparing them for this type of study. A brief review of the topics taught generally in Canadian schools reveals the following:

Grade One	Home, School, and Neighborhood
Grade Two	Neighborhood and Community
Grade Three	Community and Transportation
Grade Four	Comparison of our life with that of people in Faraway Lands

Through this development of courses it appears that the students are ready to study the effects of the structure of the city on man in the city. Experiences in the primary years (both in and out of school) have provided most children with at least some perception of his community. As a result the learner should be able to investigate on his own level those aspects of urban structure delineated earlier in this study. These preliminary inquiries have been based very much on the developmental stage of the learner. The discovery and description of how young children perceive and interpret ideas relating to the physical structure of the city will be an integral part of this whole sub-project.

In high school the students should be ready for the inclusion of urban geographical approach to the study of the structure of the city. How did it get to be the way it is? Why is the city where it is? The time is especially ripe since in grades ten, eleven and twelve the students are able to deal with problems relating to function, structure, time and space. At these grade levels they should be able to perform the task required in order to develop the inherent concepts of the discipline. They should be prepared to develop the skills required in using maps, charts, films, slides, and many other materials and techniques. Many of the materials that are developed for use at the lower grade levels can be modified and up-dated enough to make them useful at the high school level. It is our purpose to develop in conjunction with this course a kit of materials that could be used by students of all grade levels and with differing mental abilities. The students will be encouraged to use the materials with which he is most comfortable and then progress to using the more sophisticated methods and approaches. In other words he

will be able to work at his own level and to the maximum of his ability. The degree of abstractness would increase with the grade level until we would have in the final stages groups of students using fairly sophisticated techniques and materials.

D. Jacobson states that the methods of historical geography have value in school programs from the early years through high school...

"Its study can center student's attention on place during the tender years and furnish them with their first real notions about time. In later years its study can sharpen these notions, permit students to do research both indoors and outdoors and give them a better understanding of their community or area. In high school the concepts and the content of historical geography can be used to broaden the students basic knowledge of the whole continent. Its study can serve to sharpen students' power of observation and data in terms of place.."[1]

[1] D. Jacobson. "Role of Historical Geography in the American School" The Journal of Geography 64:104

VII FUTURE PLANS

Since the focus of this P.C.W. sub-project has been urban geography and related disciplines, members of the team have spent the past year delving into a fairly academic study of the physical structure of cities. The preceeding report offers the basis of discipline knowledge upon which we build our future plans. During the coming year, 1971-72, we hope to direct our energy towards development of this proposal on two different but inter-related fronts. On one hand there will be further curriculum development, that is, the collection of materials that could be used in the classroom. On the other hand we would hope to do some research in classrooms to establish what kinds of knowledge and attitudes toward the city children of various ages possess.

Thus, by the end of the coming year we would hope to be able to state what children already might know about the physical structure of a city, what knowledge, skills and attitudes can be learned about the subject and what tools of learning are best suited, to developing these knowledge, skills and attitudes. A more specific deliniation of our plans might be as follows.

1. MATERIALS COLLECTION

Since much has been learned about urban geography and related subjects, collecting instructional materials will not be especially difficult. Many contacts for sources of information about the development of our city have already been made. Some of these sources include:

a) Businesses - railway companies, established retail companies, etc.
b) Governments - Land Titles, Department of Municipal affairs, City Hall personnel.
c) Experts in various fields - an extension of the Symposia listed in Appendix A.

The nature of information to be collected will include all types of historical records and documents, maps, pictures, census information, anecdotal references, etc. Collection and organization of the materials will be done by team members and their students involved in current Social Studies courses. Some information has already been compiled in a tentative outline for one kind of study of our city - a case study. This outline appears in this report as Appendix B.

2. FURTHER RESEARCH

As has already been stated we feel it is necessary not only to know what students should learn about the development of the physical structure of a city but also to be aware of the knowledge, skills and attitudes they already possess on the subject. Since this study will be used by students of varying ages and abilities we feel it is partly our responsibility to provide some sort of device to measure what children already know. It is hoped then to develop an instrument to provide this information. One of our consultants Prof. L. Richards has consented to help us with a measurement device that will provide information on the perceptions students have of their city, especially the physical structure of the city.

This aspect of our project has emerged only lately after initial, informal classroom experiments and thus will probably be a continuing area of investigation.

Another concern which will require attention during the coming year will be an articulation of intended learning outcomes for our study. It appears that perhaps a statement of behavioral objectives will be necessary to bridge the apparent gap between the discipline concepts we have delineated and the cognitive, affective and psychomotor learnings we intend as outcomes of our project.

3. OTHER PLANS

The involvment of other groups, especially teachers and students is a priority in any of our future plans. It has already been stated that students, through collecting data on our city and by helping us determine what students perceive as physical structure of a city, will be involved in this Project Canada West sub-project.

Similarly other teachers will become project assistants by presenting materials to various students in various ways and offering their evaluation of the project.

Ultimately it is hoped that a kit can be produced to be used anywhere in Canada. The information and learning tools we hope to provide will enable the teacher to study his own community and to compare it with other communities across Canada.

We realize the importance of establishing the process of studying the physical structure of a city and therefore a teachers handbook will be produced explaining the procedure we have gone through and offering suggestions for local study. It is hoped that the kit, will be a multi media one including, perhaps, a simulation game to aid teachers and students.

Although much academic research has been done for this project we realize that it is all for nothing unless it comes alive in Canadian classrooms. The challenge for 1971-72 then is to discover what children enjoy and are able to learn about their city and to develop valid and creative instructional plans for helping students to learn.

VIII THE TRANSFERABILITY OF CURRICULUM MATERIAL

While the material to be developed will relate to Saskatoon, the concepts, objectives, and the type of material will be such as will be capable of development in any city. It is also true to say that there is a general quality of "sameness" about North American cities so that if the material and conceptual framework is valid for Saskatoon, it will be valid for any North American city. Concepts will provide guidelines for the investigation of students "home" cities. It should also then be possible for students to make comparison between their city and another or among other cities so that their knowledge and appreciation or urban problems in a city-oriented society will be enhanced.

IX BUDGET

Release time for 4 teachers for 40 days at $25.00	$4,000.00
Travel, symposia, and consultants	1,500.00
Kit production materials such as camera, film, developing, paper supplies, Annual Reports, maps, air photos, etc.	2,000.00
	$7,500.00

X EVALUATION OF TEAM DEVELOPMENT

The team originally came together in another connection. In 1968, a group of teachers who were interested in developing geographic skills came together on an informal basis to discuss ways and means of teaching and improving these skills in our schools. Eventually a more formal organization was set up under the chairmanship of Mr. L. Richards of the Saskatoon Collegiate System, consisting of teacher representatives not only from the collegiates but also from the Public Elementary System and the Separate School System as well. In 1969, this group was asked to formulate a proposal for Project Canada West and did some developmental work which resulted in the original presentation. Several changes took place in the personnel of the group between the formulation and the proposal and its presentation. Mr. Richards left the collegiates for university and his place as chairman was taken by Mr. J. Tooke. Mr. W. Delainey became a collegiate representative, Mr. B. Noonan the separate school system representative and Mr. L. Borisenko the elementary school representative. Due to these changes, plus the fact that several school systems are represented (all of course involving different schools), the group has worked under difficulties which still have not yet been resolved.

From the beginning the team wished to concentrate on the growth of the city and determined to use urban geography as the basis plus any conceptual ideas which could be contributed by other social sciences and which were considered valid. What we weren't quite sure about was the way in which we should go about designing and constructing the curriculum project which we had in mind. The meeting in Edmonton in June 1970 both hindered and aided us in our quest for the way. The aid came from the excellent presentations which were made, and mention at this point must be made

of the value of Dr. Aoki's paper and the construct theory which he presented. Confusion arose however in that in the various discussions which took place concerning the various proposals, it became very obvious that some groups were relying very heavily on university based theory while others were attempting to get to what they considered to be the heart of the matter, and arising out of classroom experience and competence, were attempting to shortcut theory and to build materials first, worrying about the theory later. Our group was one of these and, after one memorable discussion period, were resolved that we wanted no further part of Project Canada West. However, after a private meeting with some of the trustees, we reorientated ourselves and resolved to start again. The Edmonton meeting concluded with a discussion of all groups who decided, amongst other things, that the format of the presentation for June 1971 should be that which was best suited to the group.

Fall meetings tended to concentrate on a quest for availability of materials interspersed with theoretical sessions relating to behavioral objectives, evaluation and other theoretical concepts deemed necessary for curriculum construction. During this period also, approaches are made to principals and school boards who assured us of their enthusiastic support. We also developed our own theoretical model upon which we proposed to design the curriculum and which relates to the way in which various factors affect the structures of the city within an historical framework.

In November 1970 Bill Delainey, one of our team members, attended the annual meeting of the National Council for Geographic Education in Detroit. The theme of the meeting was "The Geography of Metropolitan America. In the Streets. In the Classrooms. In the Boardrooms!" The meeting was a combination of field experiences, urban theory presentations teaching demonstrations and the discussion of

the teaching strategies required to deal with urban problems in the classroom. During the meeting a wide range of books, kits, and curriculum plans were made available for examination.

Mr. Delainey brought back samples of some of the materials plus a list of other available books and materials.

He was first of all impressed by the number of problems that are in existence in the city and by the degree of concern about them. He was also impressed by the wide range of materials and approaches that are available for studying urban problems. His first hand observations of an urban center going through its throes of agonized development pointed up the vital need for urban studies in Canadian schools so that we may avoid the many problems that are being experienced by our neighbors to the south.

In December 1970 members of our group attended the meeting in Edmonton. At this meeting we obtained a better and clearer understanding of Project Canada West. We began to realize that this was a multi-phase project and we were only in phase one. This phase involves the study of various sources in order to obtain information about the methods, techniques, and theories of curriculum planning. Before this we were prepared to begin in the classroom using the project materials gathered by our group. As a result of the meeting in Edmonton we backed up a few paces and began a detailed study of curriculum methods and a study of the discipline or urban geography as well as other disciplines.

It was also at this meeting that we were exposed to the probable methods of evaluation of the various phases of the project and the outcomes of the curriculum materials proposed. The topic of further financing and further justification of the

sub-projects was dealt with. The result was the feeling that the proposal report that would be submitted in June would be the one that would determine whether or not our funding would continue. We also established a basic guideline for the June proposals. It was to be a relatively loose report telling what we did, what we are planning to do and how we are going to do what we said we would do. However, this was not to be the guideline since we received with the reports of the meeting a new more detailed guideline. We were following this when we had a meeting with the Executive Director about the form of the report and a whole new guideline was prepared. This one now included the Brunskill matrix model. Our group has endeavoured to follow this later instruction to the letter. In doing so we have found that we must resort to the repetition of a number of points. Perhaps we are in error in taking such an approach, perhaps there is some flexibility in the guideline of which we are not aware.

Our next and, to date, our most fruitful endeavors have been a series of meetings with consultants in the various social sciences whose names and qualifications have been listed at the beginning of this report. These meetings were usually held over the supper hour and no fees have been demanded by any of these people to whom we owe a great debt. In addition, meetings have also been held with Saskatoon city Alderman Koyl, Taylor and Wedge. It should be emphasized that a very great interest has been shown in our approach and that the enthusiasm shown by our consultants for the project, appears to be boundless.

Soon after Christmas, it was felt that in order to avoid overlapping, a meeting with the Project Canada West team in Winnipeg should be arranged.

In February three members of our team visited the Harbeck team in Winnipeg. This was a very fruitful meeting. Originally, we were apprehensive about the fact

that the two teams might be doing relatively the same project. However, we discovered that although our general topics are fairly closely related, our methods and our outcomes are different.

Although both teams are in some way dealing with the physical structure of the city it seems obvious to us there are fundamental differences in both the approach and objectives in the two sub-projects.

We hope to meet more often in the future in order to maintain a close contact with the Harbeck project so that we are not in danger of duplicating our efforts and materials.

Several general points can now be made. There is no doubt in our minds that this past year's experiences have been worthwhile. We have learned a great deal about city structures and also about curriculum construction. We feel that some effort is being made by school boards to encourage projects of this nature, although some seem reluctant to make contributions which involve spending money. Unfortunately the release time the team members from the Collegiates were able to obtain to work on the project this year was limited. This has resulted in some hardship to those concerned and has slowed progress as it is not possible to devote sufficient time to the project while carrying a full teaching load.

There also appears to be a power struggle in progress between the pundits of the Canada Studies Foundation on one hand and those of Project Canada West on the other. The team also fears that there are dangers of the project losing its unique feature, that is its being teacher initiated and teacher constructed. Similarly there appears to be some resentment on the part of some university personnel who feel that

their talents are not being sufficiently utilized.

The team is optimistic that the above conditions will be rectified during the next year, enabling the continuing progress of Project Canada West.

BIBLIOGRAPHY

Alpren, M. (ed.) The Subject Curriculum. Columbus: Charles E. Merrill, 1967. 561 pp.

Baine, R.P. and McMurray, A.L. Toronto: An Urban Study. Toronto: Clarke, Irvin and Company, 1970. 126 pp.

Bellar, Ruben. The Evolving City. Toronto: Copp Clarke, 1971.

Bernstein, A. The Education of Urban Populations. New York: Random House, 1967. 398 pp.

Blamenfeld, Hans. The Modern Metropolis. Cambridge, Mass. 1967.

Bourne, Larry S. (ed) Internal Structure of the City. New York: O.U.P., 1971. 528 pp.

Broek, Jan O.M. Geography: Its Scope and Spirit. Columbus: Merrill Books Inc., 1965. 116 pp.

Carr, W.G. (ed) Values and the Curriculum. Washington: National Education Association, 1970. 146 pp.

Carves, Humphrey. Cities in the Suburbs. Toronto: University of Toronto Press, 1962.

Cay, Donald F. Curriculum: Design for Learning. Indianapolis: Bobbs - Merrill, 1966. 188 pp.

Chinitz, B. City and Suburb: The Economics of Metropolitan Growth. Englewood Cliffs: Prentice - Hall, 1964. 181 pp.

Christesen, David F. Urban Development. New York: Holt, Rinehart and Winston, 1964. 95 pp.

Clements et al. Social Study: Inquiry in Elementary Classrooms. Indianapolis: Bobbs - Merrill, 1966. 402 pp.

Community Planning Handbook. Boston: Ginn and Company, 1970. 96 pp.

Conant, J.B. Slums and Suburbs. New York: McGraw - Hill, 1961. 146 pp.

Douglass, Malcolm P. Social Studies. Philadelphia: J.B. Lippincott Company, 1967. 584 pp.

Fenton, Edwin. Teaching the New Social Studies in Secondary Schools. New York: Holt, Rinehart and Winston, 1966. 526 pp.

Frost, J.L. and Rowland, G.T. Curricula for the Seventies. Boston: Houghton - Miflin, 1969. 454 pp.

Gardner, William E. and Johnson, Fred A. Social Studies in the Secondary Schools. Boston: Allyn and Bacon, 1970. 510 pp.

Gentilcore, R.L. Geographical Approaches to Canadian Problems. Scarborough: Prentice - Hall, 197 pp.

Gibson, John S. New Frontiers in the Social Studies (Books 1 and 2). New York: Citation Press, 1967. 540 pp.

Goldwin, R.A. (ed) A Nation of Cities. Chicago: Rand McNally, 1968. 128 pp.

Gopsill, G.H. The Teaching of Geography. New York: Macmillan, 1966. 316 pp.

Gross et al. Teaching the Social Studies. Scranton: International Textbook Company, 1969. 573 pp.

Hanna et al. Geography in the Teaching of Social Studies. Boston: Houghton - Miflin, 1966. 511 pp.

Hardwick, Francis C. Teaching History and Geography. Toronto: W.J. Gage Ltd., 1967. 267 pp.

Hauser, P.M. "City-City Planning," World Book Encyclopedia. Chicago: Field Enterprises Educational Corp., 1971. pp. 448-461.

Herman, Wayne L. Current Research in Elementary School Social Studies. London: Macmillan, 1969. 465 pp.

Hodgetts, A.B. What Culture? What Heritage? Toronto: Ontario Institute for Studies in Education, 1968. 122 pp.

Honeybone, R.C. "Balance in Geography and Education," Geography, 39: 91-101, 1954.

Howes, Virgil M. Individualizing Instruction in Reading and Social Studies. Toronto: Collier - Macmillan Ltd., 1970. 236 pp.

Irving, Robert M. Readings in Canadian Geography. Toronto: Holt, Rinehart and Winston, 1968. 398 pp.

Jacobson, D. "Role of Historical Geography in the American School." Journal of Geography, 64:104.

James, Preston E. "The Significance of Geography in American Education." Journal of Geography, 68:473-83, 1969.

Jarolimek, John. Social Studies in Elementary Education. Toronto: Collier - Macmillan Ltd., 1967. 534 pp.

Jarolimek, J. and Walsh H.M. Readings for Social Studies in Elementary Education. Toronto: Collier - Macmillan Ltd., 1969. 485 pp.

Johnson, James H. Urban Geography: An Introductory Analysis. Oxford: Pergamon Press, 1967. 188 pp.

Jones, Emrys. Towns and Cities. Oxford: O.U.P., 1966. 152 pp.

Joyce et al. Elementary Education in the Seventies. Toronto: Holt, Rinehart and Winston, 1970. 579 pp.

Krueger, Ralph (ed) Urban Problems: A Canadian Reader. Toronto: Holt, Rinehart and Winston, 1971.

Krug, E.A. Curriculum Planning. New York: Harper Brothers, 1957. 336 pp.

Leacock, E.B. Teaching and Learning in City Schools. New York: Basic Books Inc., 1969. 263 pp.

Logan, L.M. and Rimmington, G.T. Social Studies: A Creative Direction. Toronto: McGraw - Hill, 1969. 304 pp.

Marsh, Leonard. Communities in Canada. Toronto: McClelland and Stewart, 1970 213 pp.

Mayer, H. and Kohn, C.F. Readings in Urban Geography. Chicago, 1959.

McIntosh, R.G. and Housego, I.E. (eds) Urbanization and Urban Life in Alberta. Edmonton: Human Resources Research Council, 1970. 153 pp.

Ministry of Education. "Geography and Education," Pamphlet No. 39, London: H.M. Stationery Office, 1960.

Morris, J.A. "Reality in Geographical Education." Geography, 51:87-98, 1966.

Morris , J.W. "Geography in the Schools of Tomorrow" Geography, 51:307-17, 1966.

Morris, J.W. (ed) Methods of Geographic Instruction. Waltham: Blaisdell Publishing Company, 1968. 342 pp.

Morrissett, Irving (ed) Concepts and Structure in the New Social Science Curricula. New York: Holt, Rinehart and Winston, 1967. 161 pp.

Mulvihill, D.F. Geography, Marketing, and Urban Growth. New York: Van Nostrand Reinhold Company, 1970. 189 pp.

Mundy, John H. and Riesenberg, P. The Medieval Town. Toronto: Van Nostrand Company, 1958. 190 pp.

Neagley, R.L. and Evans, N.D. Handbook for Effective Curriculum Development. Englewood Cliffs, New Jersey: Prentice-Hall, 1967. 354 pp.

Newman, Fred M. Clarifying Public Controversy. Boston: Little, Brown and Company, 1970. 356 pp.

Nerborig, Marcella H. Unit Planning: A Model for Curriculum Development. Worthington: Charles A. Jones Publishing Company, 1970. 96 pp.

Preston, R.C. Teaching Social Studies in the Elementary School. Toronto: Holt, Rinehart and Winston, 1968. 370 pp.

Ragan, William B. and Shepherd, G.D. Modern Elementary Curriculum. Toronto: Holt, Rinehart and Winston, 1971. 534 pp.

Scarfe, N.V. "New Directions in Geographic Education in North America." Geography, 51:198-209, 1967.

Scarfe, N.V. "The Objectives of Geographic Education." Journal of Geography, 67:4-5, January, 1968.

Schmieder, Allan A. "Some Trends and Their Implications for Geographic Education." Journal of Geography, 68:208-215, April, 1969.

Selakovich, D. Social Studies for the Disadvantaged. Toronto: Holt, Rinehart and Winston, 1970. 207pp.

Shapiero, Harry L. (ed) Man, Culture and Society. New York: O.U.P., 1970. 380 pp.

Simmons, James, Urban Canada Toronto: Copp Clarke, 1969.

Smith et al. (eds) Readings in Economic Geography. Chicago: Rand McNally, 1968. 398 pp.

Strauss, A.L. Images and the American City. New York: Free Press of Glencoe, 1961.

Taba, Hilda. Curriculum Development. New York: Harcourt, Brace and World, 1962. 526 pp.

Thornton, J.W. and Wright, J.R. (eds) Secondary School Curriculum. Columbus: Charles E. Merrill, 1963. 333 pp.

Tomlinson, Ralph. Urban Structure. New York: Random House, 1969, 335 pp.

Tunnard, C. The Modern American City. New York: Van Nostrand Reinhold Company, 1963. 191 pp.

Unruh, Glenys G. and Alexander W.M. Innovations in Secondary Education. Toronto: Holt, Rinehart and Winston, 1970. 247 pp.

Woolforth, J. and Leigh, R. Urban Prospects. Toronto: McClelland and Stewart, 1971. 171 pp.

APPENDIX "A"

A SUMMARY OF THE SEMINAR SERIES

Listed below is a resume of the major seminars held during the past year with groups of prominent academicians and concerned experts. During each seminar, the participants were informed of the nature of Project Canada West and were invited to offer ideas and opinions on one specific aspect of urbanization, namely, the concerns dealing with the physical structure of cities in general and Saskatoon in particular. As a rule these experts restricted their comments to their own particular area of expertise, be it economics, sociology, city planning, etc. Because the nature of each individual's expertise was varied a wide range of often conflicting points of view emerged.

Each seminar generally lasted from two to five hours. At the end of each one the participants were asked to provide the team with a reading list or with other directions for further investigation.

As a result of the series of discussions an edited tape recording has been prepared which will provide a basis for further dialogue. Because of the success of this venture this sub-project group hopes to continue with a similar series in 1971-72.

The dates and the participating experts of each seminar are listed below. They are also listed in the section on personnel under the heading of "experts participating in seminars."

1. January 19, 1971

   Professor Ron Rees
   Gordon Tweddell

2. January 26, 1971

   Neon Products

3. March 2, 1971

Professor Stabler
Herbert Wellman
Professor Norman Ward

4. March 9, 1971

Professor Zenon Pohorecky
Professor Ron Rees
Peter Williams
Professor Richard Laskin

5. April 1, 1971

Herbert Wellman

6. April 13, 1971

Alderman George Taylor
Alderman James Wedge

7. May 11, 1971

Professor Ron Rees

APPENDIX B

TENTATIVE MATERIAL FOR CASE STUDY

Saskatoon Study

The Regional Setting

Prairie cities occupy a distinct physical environment and have grown in response to an unusual set of historical and economic conditions. Man and nature have combined to produce one of the world's most distinctive landscapes.

The Prairie Landscape

Physical characteristics -- flat, largely treeless, few streams; harsh continental climate.

Cultural characteristics -- continuously settled area -- the largest in Canada; a planned landscape -- rectangular survey; fine rail network superimposed on the grid; regularly spaced towns and dispersed farmsteads. Except for differences in scale resembles centuriated landscapes of Italy.

The Urban Pattern

Prairie towns, unlike those in Eastern Canada didn't originate through a process of slow selection. Vital components in the Settlement Plan for the Prairies -- purpose to serve the farming population. Most of the townsites selected by the Railway Companies -- regularly spaced -- 8-10 miles apart -- grid plan, for convenience of survey and for accommodating of future growth. Urban pattern constantly changing in response to technological, economic and social change -- e.g. changes in farm economy, transportation, improvements in standards of living and changes in taste, changing nature of retail services.

General characteristics of prairie towns: Occupying similar sites with similar ground plans and performing similar functions they tend to have similar forms. Describe characteristics.

Saskatoon

An overview of the city is a useful starting point -- provides framework into which separate parts can be fitted. Also, since every city is a mixture of old and new forms it gives a sense of historical continuity and makes sense of an historical approach to a study of the contemporary city structure.

Location of Saskatoon and its size -- comparison with other prairie cities; the general functions of the city; its general structure and the ways in which this is similar to and dissimilar from the structure of small prairie towns; what the present structure owes to the past -- the road and rail network and how these have affected the growth of the city; the city's links with its region -- rail, highway and air links -- trading area of the city. (Retail area pp. 156. Atlas of Saskatchewan). Materials -- air photographs, land use maps, highway maps.

Site and Situation

Profoundly affect the development of a city. Site characteristics -- topography, surficial geology, climate. Contain maps, cross sections, block diagrams, air photographs, graphs and tables showing temperature and precipitation characteristics, sunshine amounts, wind frequency, speed and direction -- Source -- "Physical Environment of Saskatoon." (Ed. E.A. Christianssen, 1970).

Situation

The location of the city with respect to the region which it serves and to the

province on a whole. The general physical characteristics of the region, the nature of its economy, distribution of population and how these are related to the growth and development of Saskatoon. Sources - "The Physical Environment of Saskatoon" (pp. 57--59). Atlas of Saskatchewan -- Land utilization map pp. 2.

The Origins and Growth of Saskatoon

Principal characteristic of Saskatoon's growth cyclic pattern of its fortunes and development. Although not a unique characteristic exhibited to a greater degree in Saskatoon than in most other Canadian cities. From being the "Wonder city" and the 'fastest growing city in the British Empire in boom of 1910-1913, it was the only Canadian city over 30,000 to experience a population decline from 1931 to 1941 and then ranked third amongst major urban area in rate of growth in the late fifties and early sixties. Reflects the sensitivity of the regional economy to external market conditions -- wheat and potash. Also demonstrates the intimate connection between the fortunes of the city and the fortunes of the region.

To illustrate the growth of the city the cross sectional approach will be used. This is a particularly useful approach where a city has been subject to cyclical growth -- city can be surveyed at the end of active periods -- 1907 (incorporated as a city). 1913 1929 1945 1969/70. Extent of built-up area; physical patterns made by various land uses -- maps and photographs; types of business and manufacturing (including railways) accompanied by newspaper and magazine ads to give flavours of period and to indicate increasing diversity of function; population growth, ethnic origins and structure, nature of employment. Sources -- business directions, newspaper archives. Census.

1883 - 1907

Temperance Colony - reasons for choosing site of Saskatoon for their townsite - Nutana hill - lasting effects of survey of 1883 - wide streets - E-W99' instead of customary 66'. Southern part of what is now CBD also surveyed in 1883. 1890. Construction of Q.I.L.+S. railway (now C.N.R.) Regina - P.A. River bridged 1890. Saskatoon became shipping centre for then flourishing range cattle industry - also buffalo bones. Focus of growth gradually shifted to west side of businesses located near the station to avoid difficulties of ferrying goods.

1901 - 20 horses, 113 people in west side.

1890's depression and drought. By 1900 rainfall normal, development of early maturing wheats, buoyant market - immigrants poured in from Europe.

1903. Arrival of Barr colonists - camped on school section west of tracks - with departure east half auctioned off by government. Bought and immediately surveyed into town lots - Riversdale - 3 separate surveys.

1903 incorporated as town - population area 974 acres. Nuisance ground corner on 23rd street and 3rd avenue.

1905. Main line C.N.R. completed as far as Battleford - competition for the line.

1906. Villages of Nutana and Riversdale amalgamated with Saskatoon - combined population 4,500.

1906. Declared a city - under city status borrowing power doubled. Adoption of ward system of city government. Area 2,567 acres.

1907-1913

C.N.R. announced plans to build line SW of Calgary - began building new

passenger depot opposite 21st Street. C.P.R. bought right of way into the city and present station site. First train 1908. Convergence of lines - Saskatoon's nodality greatly enhanced - anointed the 'Hub City'. Council pressed for a Union terminal - numerous lines into city - railway companies unco-operative.

1907. First building inspector hired - 1907 earliest record of number and value of building permits issued (Weins p. 16). First regulations to control erection of buildings 1904.

1907. Act to establish U. of S. in Saskatoon successful in competition for the site.

1910-13. Boom Years. By 1910 position as railway, distributing and wholesale centre assured. Great deal of building and phenomenal rise in real estate values. 1914-15-16 real estate agencies - farm lands 3 miles from city limits subdivided - see Yorath Plan.

1913, Municipal street railway begun operations.

1913, Depression in world economy.

1914-1929

Industrial growth during war years - milling and meatpacking - city's regional role.

1916. University bridge opened.

City flourished up to 1929 - peak year in value of building permits $2.00 1934 - $80,000. Population decline and change in structure - 1936 more females than males - indication then immigration has stopped. Reversal of land to city - tax default - opportunity for large scale land assembly.

1930 - Possibly 1945

Depression years. 1939. War and economic recovery. 1945. Need for

approximately 2,000 new houses 'wartime' houses built on sites provided by the city. Economic, population and physical growth in post-war period.

Analysis of Present City Structure

Study of the spatial arrangement of the various elements that, in combination, make up the total urban complex - physical patterns made by commercial, residential, industrial and other land uses. Useful to begin by composing present structure with models or theories of generalized arrangements of land uses - each attempts to identify the general forces underlying the gross Pattern of land uses. Brief description of the models concentric zone, section and multiple nuclei.

Marked similarities with Burgess' concentric zone theory. C.B.D. surrounded by older, eroded residential areas -- zone of transition includes small Chinese quarters, the Indian population, older hotels, cheap rooming houses, etc. Surrounded by newer suburbs -- outer zones of Burgess' model-zone of workingman's homes, etc. not easily distinguished.

Sectory theory -- expansion along major access routes -- commercial and certain kinds of residential uses -- 8th, 22nd and north end of Idylwyld Drive. Rows of apartment blocks 22nd. Main and 7th streets. High class residential -- began in Nutana, extended along river to its latest extension -- River Heights and eastward into Grosvenor Park, Greystone Heights and southward toward Eastview area. Industrial growth -- section-like development along major transport routes -- earliest along railways which ran into centre of city. Three new industrial parks -- C.N. park in South Nutana, North Industrial Park - north on circle drive and east on Idylwyld and new industrial, warehouse area, new C.N. passenger depot. South-east on Montgomery Place follow railway and have good access to major highways.

Multi-nuclei theory -- applies more readily to large cities - no truly independent growth points in Saskatoon although the larger shopping plazas may become so-miniature C.B.D.'s.

Only area with a separate identity is Sutherland -- joined city in late fifties -- forms C.P. industrial area.

Patterns within the City

Commercial Land Use: retail, wholesale, financial and serious activities -- principle source of employment.

Proportion of city's area taken up by commercial land - What percentage of labour force is engaged in commerce? Importance of commercial activities in the city's economy. (Projected economic base study 71/72).

Commercial area -- downtown and suburban:

Downtown -- the C.B.D.

Extent -- usually difficult to define unless bounded by, for example, a park or a railway line. Measures of intensity diminish outward - pedestrian counts, traffic counts, land values, rents. Usually a peak land value intersection often occupied by banks and department stores. Region of maximum intensity of land use -- high building densities and tall buildings -- vertical profiles of C.B.D. -- if possible at different periods -- overlays.

Land uses within C.B.D. -- retail, wholesale and service areas -- relationship with traffic, pedestrian movements and land values and kinds of transportation.

Street surveys -- horizontal, showing changes in commercial activity from P.L.V. intersection to edge of C.B.D. Vertical -- showing changing uses by floor in

selected blocks.

Changes in the centre -- induced, for example, by rerouting of traffic, building of new highways, construction of new plazas, etc.

Impact of commercial land uses on adjacent areas -- erosion of residential areas.

Effects of adjacent residential area on commercial outlets - 20th St. Ukrainian stores, meat markets, used furniture stores, etc.

Quality of the C.B.D. Visually -- signs, averted wires, architecture, general design and layout. Functionally -- convenience of distributions -- are walking distances too great, parking lots suitably located etc.? are the blocks too long, is there adequate protection from traffic and the weather? Climate and design -- of individual buildings and of general disposition. e.g. in a cold, windy climate protection needed in form of voered and enclosures, wide straight streets simply wind tunnels -- possibilities for overpasses, covered sidewalks, etc. -- are the streets too wide? are the streets busy by day and by night? -- which parts of the C.B.D. are empty at night and why -- are these enough public places where people can sit without paying for it? Saskatoon's C.B.D. much too big for the size of its population -- overzoning of commercial landpartly through over optimism in the estimates of future growth and partly to please business interests and land owners. Also 'prairie planning.'

Suburban Commercial

Growth of commercial floor space in suburbs -- compare with C.B.D. -- bar graphs and/or tables -- sources Planning Dept. and Centres. Also companies of retail sales. Saskatoon's C.B.D. is nearly coterminous with a census district. Clarify types of commercial development -- ribbon developments along main highways, e.g.

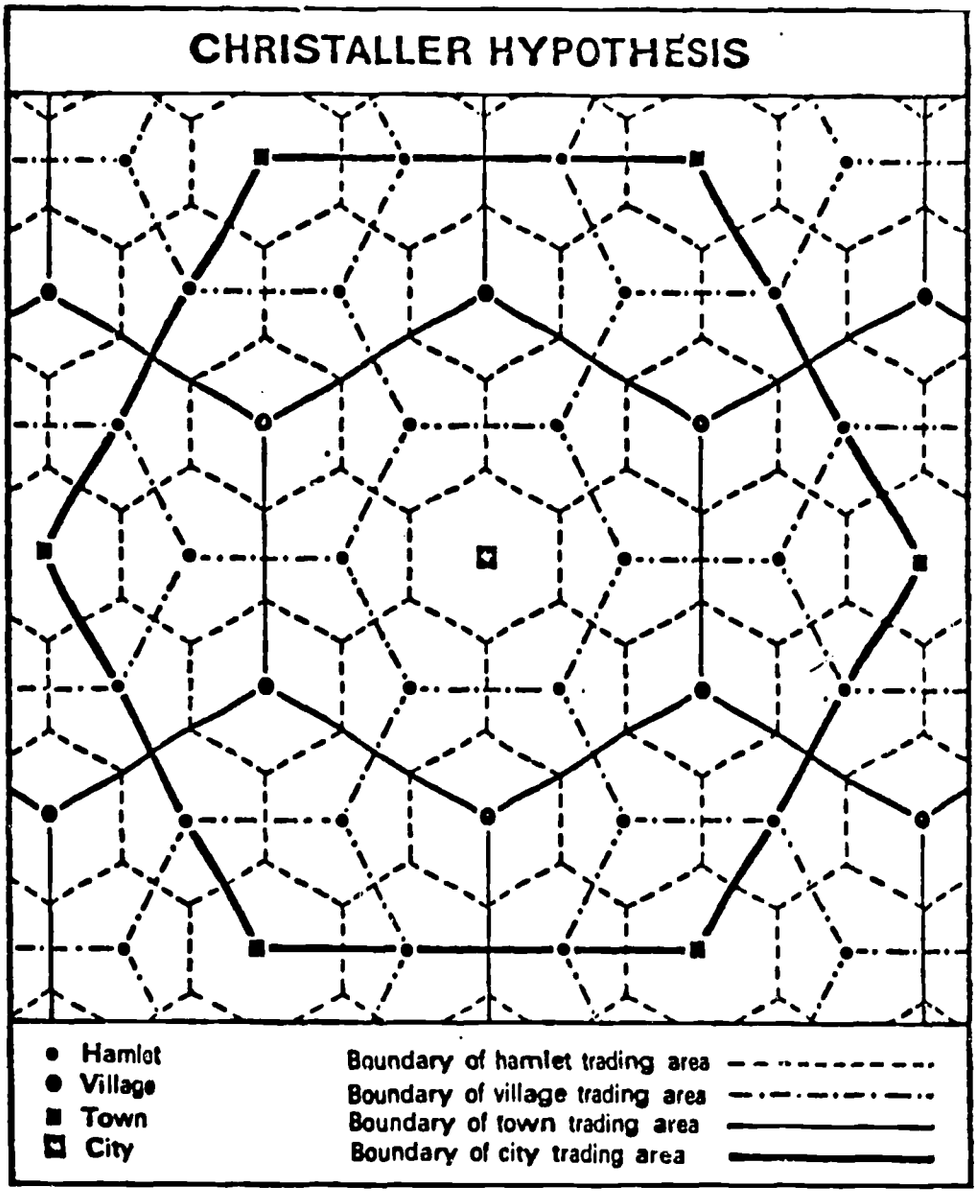

Fig. 7. W. Christaller's theory of the arrangement of trade centres. In this system there is a constant ratio between the number of trade centres at various levels of specialization and between the areas of the respective zones of influence.

8th Street; the isolated corner grocery to the various nucleated types from small store clusters -- drug and grocery store -- to neighbourhood shopping plazas -- e.g. Avalon and Churchill -- to district plazas -- Market Mall -- offering wide range of retail services plus banking, insurance, medical services etc.

Christaller's central place theory (Figure 7) applicable to distribution of commercial services. Planning goal is the maximum number of shopping services available at the minimum distance. Ideal arrangement - hierarchy of shopping centres ranging from neighbourhood to district to downtown.

Are shopping districts in Saskatoon suitably located? The 8th Street ones are obviously poorly located -- ought to be scattered at nodal points to maximize their accessibility. Their huge parking areas are empty at night -- complexes ought to include drive-ins, movie theatres, libraries so that facilities are utilized throughout the day. i.e. make them real neighbourhood centres. Long, dead periods inevitable in single-use districts. Sample studies of commercial developments -- urban development and a shopping plaza -- types of commercial outlet, clientele area served. Effects of commercial growth in residential areas -- buffer of apartments between the ribbon commercial developments and the cossetted single family sub-divisions - 8th, 7th and 22nd Streets.

Residential

Percentage of total area taken up by residential land. Residential structures -- 85 per cent single family dwellings - 80 per cent owner-occupied.
General residential patterns by type and quality of housing. Factors affecting type and quality: Cyclical growth of city -- led to some scattered, uneconomic development

vulnerable toblight and dilapidation. Large numbers of houses left stranded on fringes of city -- 'Three Sisters' of S.E. Nutana. In intense periods of growth shoddy constructional practices.

Locational factors - proximity to railways, industrial districts C.B.D. etc.

West side partially cut off by C.N.R. yards -- area bisected by two railways -- loins of industry.

General lack of amenity -- poor quality housing in southern part of area.

General lighting factors -- heavy industry, major utilities, railway lines and yards, major roads and highways, overhead transmission lines, airports, commercial development, swamps, stagnant bodies of water, the poor and the colored and especially the colored poor. East side -- Nutana remained almost wholly residential in character -- absence of railways and industry. Benefits from having the university. Post war expansion concentrated, until very recently, in Nutana - 65 per cent of all houses 1945-58 -- Hart's sector theory.

Residential Planning - city's land assembly policy -- permitting central or suburban development. Planning has followed standard North American practices. Up to mid-sixties main concern sub-divisions for single family dwellings. Subdivision preserve for middle and upper classes -- concentration of young families. Houses grouped into neighbourhoods -- population. Focal point -- elementary school -- does little to create feeling of neighbourhood or community -- School under used after 5-10 years - uniform population structure -- and students have to make long journeys. School grounds barren and uninviting -- need landscaping and imaginative play areas. Low density housing -- residents forced into car for practically all needs. Higher densities -- some garden apartments, row houses, etc. -- stores, libraries, churches could all be

within easy walking distance. Some of Saskatoon's subdivisions are isolated rural ghettos -- poor public transportation and no recreational or social facilities. Case study of a neighbourhood.

Apartments -- cells for the very young, the old and the transients. Many in linear developments act as buffers to the commercial zones. 7th, 8th and 22nd streets. No linkages between apartment districts and single family subdivisions -- apartments linked by roads which serve as border to the neighbourhoods. Apartments faceless, repetitive, alienated. High quality apartments -- river edge and adjacent to C.B.D. -- attracting the well-to-do young and old seeking central amenities. Relationship between housing characteristics and population characteristics -- income and educational levels, age-sex structure, ethnic structure.

Industrial Land Use

Percentage of land in industrial uses. Percentage of labour force engaged in manufacturing. Types of manufacturing and relationship to produce of the region and needs of the region. Markets for manufactured products -- local, regional and national. Advantages and disadvantages of the city as a location for industries. Location of manufacturing activity -- downtown and suburban. Size and type of manufacturing plants.

Sources -- Census and planning department.

Case study of an industrial park.

Recreational (Parks)

Percentage of total area in parks. Natural sites for parks -- only natural site banks of river yet aren't developed. With little expense walkway system, with

crossings at roads and railways, could easily be developed -- also benches and picnic tables. Are there enough parks? Are certain districts e.g. Riversdale, poorly served? Are there open areas within the city which could be used for park development? e.g. elongated space in N.W. of city 23rd to 38th streets which might provide a linkage between Lief Erickson, Scott, Pierre Radison and Henry Kelsey Parks. Facilities within existing parks. Are they adequate, imaginative -- or is the same kind of formula planning applied to parks as to subdivisions? Wisdom of orienting recreational planning to outdoor activities in a climate with 6 to 7 months of winter. There aren't nearly enough indoor facilities. Use of the schools might ease the problem a little.

Transportation

Roads, railways and airports are a major element in land use picture. Specialized areas of land use created, largely, by transportation developments and at same time are basic generations of movement within the city.

General characteristics of the network -- effects of site and early centres of growth on transportation patterns. Inter-city and intra-city networks and their effects on land uses.

Efficiency of the transportation network -- flow diagrams, areas of congestion, accessibility of the centre, efficiency of the bus system..a few sample studies to demonstrate how the distribution of land uses generates traffic flow -- house to work, school, shopping, etc.

Planning--Structure of city planning authority and its role in the city government. Jurisdiction of the Planning Department. Role of City Planning Commission. Brief

history of growth of planning. Analysis of planning tools -- zoning, building by-laws, etc. and assessment of their effectiveness in an economy governed by the market. Appraisal of the city's community planning scheme as master plan.

APPENDIX "C"

NOTE: The following report is an evaluation of EDCUR 489--889, a class in social studies curriculum development offered during the 1970-71 academic year by Professor H. Dhand. The class used Project Canada West as a model for the study of aspects of curriculum development.

REPORT AND EVALUATION OF ENVIRONMENTAL ANALYSIS STUDY GROUP SUB-PROJECT

by Heinz-Gerd Schulz
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When I enrolled in the Curriculum Studies class 489--889 I expected it to be similar to previous curriculum classes that I had taken, i.e. lectures, reading, some seminars and essays. It was only after I had attended the first class that I had an inkling of how extensive the project work was. The introductory work confused me to a certain extent because the latter reports seemed to be at times contradictory to the earlier ones. It was not until the third meeting that I became fully aware as to what was to be done, how it was to be done, and who was to do it. After listening to some comments made by fellow students, I gained the impression that they had been in the same predicament. I believe that a short written outline, explaining the course, groups involved, especially the role of the Saskatoon groups, should be prepared and given to the students and any new members participating in this project.

At first I had the intention of working with everyone of the three groups, changing groups approximately every two months. However, after attending several combined group meetings I decided that I could gain enough general information about their respective work to satisfy my curiosity. I came to the conclusion that by joining the group studying the morphology of Saskatoon, I would benefit the most and in return contribute the most meaningful work. I am glad that I did join this

particular group because not only was and is the work interesting, but I have learned more about the history of the city than I would have previously thought possible.

My particular participation within the group was limited to a study of the history of Eaton's and the Hudson's Bay stores in Saskatoon, as well as assisting Professor Rees in his study of Saskatoon from the geographical point of view. In the latter case I did mostly leg work. The Eatons - Hudson Bay assignment I completed in January, 1971. At the various meetings, especially those at which the resource personnel were present, I limited myself to the process of absorbing and quietly evaluating what was being discussed.

On the whole I enjoyed this class for several reasons. First, the approach was entirely different to anything I had taken previously. Second, there was considerable independence, I could maintain my own work schedule. Some weeks I did considerably more than the required three hours of work, at other times a little less. Third, I enjoyed working in the project because it is trying to change an area in our high school curriculum where change has been long overdue. Fourth, I could contribute in a limited way. Fifth, the relaxed, informal atmosphere was conducive to participation by all members. Sixth, the cross cultural and multi-discipline approach may have slowed the project down, but it made it more interesting as well as more accurate. Seventh, allowing students to participate in the major group meetings, i.e. Edmonton was especially enlightening.

If there is any criticism that I have, then it is the lack of good public relations. I found my early research work was impeded because the people whom I contacted did not know who I was and what I was trying to do. I believe that

some form of introductory letter would have been helpful. Some of our resource agencies still are somewhat unsure as to what we are trying to accomplish, even though we have used them repeatedly. I think that it is high time that they received a brochure showing the total project, particularly the work being done by the Saskatoon groups. (By this time the above omission may have been rectified). Nevertheless, if possible, I would like to remain a member of this project.

Based on my observations I would venture to make a few recommendations. First, in all future research work the new member should, if possible, be paired with someone who has worked previously on this project. Second, the project would benefit if the liaison between the project staff and the resource personnel was improved. This could be extended to the Canada Studies Foundation. Third, students should, if possible, be included and encouraged to participate at the major group meetings. Fourth, major resource agencies should be cultivated and informed regularly with a monthly circular. Fifth, other contributors, stores, lesser agencies and individuals should have their contributions mentioned and be given a courtesy copy. Sixth, where it is feasible, encourage the active participation of senior high school students. Seventh, guard against the development of an over specialized view or pseudo-unique attitude of our city and project; make use of as many sources as possible.